**(Typescript does not contain all data from Tables)**

**1970**

**Field Notes from Andalucía, SPAIN**

**Stephen D. Busack**

**Transcribed from the originals (on file at Carnegie Museum of Natural History), edited for ease of use and understanding, by S. D. Busack, October, 2014 et seq.**

**1970 Rain and Flooding Summaries**

**1970, 7 January**

**Naval Base**--It has rained every day since 1 January, accumulation has been heavy in lowland areas. 2020 hrs, 15°C, many places up to 2.7 mi. WNW Rota, normally dry, are under water to depth of 25 cm or more; light rain is falling. At 2055 hrs light mist started, at 2100 hrs it stopped. Heavy rain began at 2200 hrs. At 6.0 mi ESE of Chipiona the east side of the road is entirely flooded and the west portion very wet with not as much as E. side) standing water.

**1970, 8 January**

**Puerto de Santa Maria**--Heavy flooding noted in normally dry collecting area; as much as 0.6 m of standing water in some areas

**1970, 10 January**

**Puerto Real** --At 2007 hrs a heavy rain began.

**Algeciras, on C-440** --2015hrs rain reduced to slight drizzle.

**Los Barrios , C-440**--Road with much surface water; mud covering road surface is indicative of previous flooding.

**Casas del Castaño, C-440** -- considerable road water observed2.4 mi. NW, and 6.3 mi. NW. 8.8 mi. NW much of the road surface is under water (1.25-2.54 cm deep) and in some areas there is considerable flooding.

**Jerez de la Frontera, C-440**--9.8 mi. SE there’s a river on the road for about 150 m. 14.4 mi. SE, considerable water flowing on the road.

**1970, 11 January**

**Villamartín** --Little or no standing water to 4.8 mi. WSW; considerable road flooding was found at 6.1 mi. WSW, at 7.1 mi. WSW a veritable stream is flowing down the road. 7.3 mi. WSW the Río Guadalete has flooded her banks to at least 15 m on either side.

**Bornos** --0.6 mi. SSW a heavy fog has set in on N-342, 2.1 mi. SSW the fog has lifted. Between 4.3 and 4.5 mi. SSW, considerable flooding across the road and at 4.5 mi. SSW a small stream was crossing the road.

**Arcos de la Frontera, N-342**--0.6 mi. NNE the road is flooded. 1.6, 2.2, 3.3 , 4.1, and 4.5 mi. WSW with considerable flooding. 5.5, 5.0, and 1.5 mi mi. ENE serious road flooding.

**1970, 13 January**

**NAVBASE, Rota** --3.0 mi. NW both sides of road flooded, much surface water on road. 6.0, 6.2 , and 9.0 mi. NW there is considerable flooding.

**Intersection of C-440 (to Jerez de la Frontera and Sanlúcar de Barrameda) with unmarked road to NAVAL BASE**--0.7, 2.0, 3.3, 4.4, and 6.1 mi. WNW on C-440 much standing water (running in places) on highway.

**Sanlúcar de Barrameda, C-440 --** 1.8 mi ESE standing water on road.

**Trebujena, C-441**--0.8 mi. NE, road is flooded and covered with mud, indicating previous flooding. 5.7 mi. NE considerable water over road’s surface.

**Trebujena, CA-601** --5.4 mi. SW considerable water on highway. 3.9 mi. SW flooded land to the west. Roadway was under water (1.25-2.54 cm deep) at 8.2 and 8.3 mi. SE.

**Jerez de la Frontera, C-440** -- road under water 4.2 mi. and 1.4-1.2 mi. NW.

**1970, 14 January**

**Jerez de la Frontera**, **CA-502**--Road flooding at 13.1, 14.0 (to S), 14.1, and 15.7 mi. ESE.

**Arcos de la Frontera, C-343** -- E portion of land is under water at 7.3 mi. SSW and the W side is extremely wet.

**1970, 17 January**

**Jimena de la Frontera (N36.43890 W5.44437), C-333**

7.3 mi. SSW on **C-333** is under water **to the East** and the W side is extremely wet.

**Villamartín (N36.85870 W5.63933), N-342**

1.2 mi. ENE on N-342 the road is flooded and the N side of road under water

**1970, 28 January, Algar (N36.65531 W5.65956), CA-6104**

Slight drizzle started at 2110 hrs, Rain stopped at 2140 hrs. Raining again at 2246 hrs, subsiding at 2309 hrs.

**1970, 06 February**

**Vejer de la Frontera-Zahara de los Atunes-Barbate de Franco-Vejer**

There has been rain in the area in the past 2 days.

**1970, 09 February, Rota-Chipiona-Sanlúcar de Barrameda**

Rain today but no appreciable accumulation; Road to Chipiona dry. *Pelodytes* and *Hyla* heard along route.

**1970, 21 February, Trafalgar (~N36.18564 W6.03306)**

considerable flooding in area of Cabo Trafalgar

**1970, 25 February, Puerto de Santa María (= Valdelagrana, N36.57945 W6.22406)**

extremely wet western side

**1970, 02 March, Los Barrios, C-440**

middle of road wet

**1970, 02 March, Casas del Castaño (N36.30792 W5.59662), C-440**

Several snails noted on road at 3.9 mi. NW

at 2125 the rain started, Rain previously mentioned terminated about 2200 hrs.

**1970, 12 March, Casas del Castaño**

2135 raining; 2150 raining heavily in the area. 2203 hrs, 6.1°C, The rain is still cold

**1970, 15 March, La Barca de La Florida,** 4.9 mi. E on CA-502.

**1970, 09 April, Rota (N36.62899 W6.35430)**

Small shower

**1970, 10 April, Puerto de Santa Maria-Puerto Real-Chiclana de la Frontera-Vejer de la Frontera-Tarifa-Algeciras-Los Barrios-Facinas-Vejer-Rota**

rain last night

**1970, 13 April, La Barca de la Florida, 4.9 km E.**

vernal pool non-existent last month, or at least between the last collection (1970, 20 March**)** at this location and now

**1970, 16 April, Puerto de Santa María (= Valdelagrana, N36.57945 W6.22406)**

Most of the area is drying up now or at least beginning to.

**1970, 16 April, Base Naval de Rota, Golf Course, (N36.629330 W6.353636)**

Pond water level decreasing.

**1970, 05 May, Puerto de Santa María**

All water holes dry now and no standing water available. Muck soil still supporting moisture above normal level but the dryness will soon be apparent.

**1970, 22 September,** **Puerto de Santa Maria**

Moisture plentiful only under rocks.

**1970, 7 October, Los Barrios, (N36.18209 W5.48920), C-440**

2220 hrs-2250 hrs, slight drizzle, road wet but no amphibian activity noticed.

**1970, 8 October, Naval Base-Puerto de Santa Maria-Jerez-Alcalá de los Gazules-Casas del Castaño-Los Barrios-Algeciras**: 1800 hrs-2250 hrs.

Some rain today. 2017 hrs; 2145 hrs, rain started again.

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**1970, 7 January**

**Naval Base-Rota-Chipiona**

1955 hrs-2215 hrs.

It has rained every day since 1 January, accumulation has been heavy in lowland areas.

Intermittent rain, SW wind 18-25 mph, 15°C at 1955 hrs. Survey ended at 2215 hrs, at 15°C.

2020 hrs, 15°C, many places up to 2.7 mi. WNW Rota which are normally dry are under water to depth of 25 cm or more; light rain is falling. At 2055 hrs light mist started and at 2100 hrs it stopped again. Heavy rain began at 2200 hrs. At 6.0 mi ESE of Chipiona the east side of the road is entirely flooded and the west portion very wet with some (not as much as E. side) standing water

**1970, 7 January, Base Naval de Rota, Vicinity of Harbor (N36.624244 W6.334138)**

1955 hrs, one *Epidalea calamita* A.O.R..

**1970, 7 January, Rota (N36.62899 W6.35430)**

1.0 mi. WNW, *Pleurodeles waltl* seen A.O.R./D.O.R. on Chipiona Road.

**1970, 7 January, Rota -2-**

3.5 mi. WNW, *Pleurodeles waltl* seen A.O.R./D.O.R. on Chipiona Road

3.9 mi. WNW, *Pleurodeles waltl* seen A.O.R./D.O.R. on Chipiona Road

1.4 mi. WNW, 2010 hrs, *Epidalea calamita* (CMFS 18245-18250; CM 52454-52459).

1.9 mi. WNW, 2012 hrs, *Epidalea calamita* (CMFS 18245-18250; CM 52454-52459).

1.0 mi. WNW, 2010 hrs-2030 hrs, *Pelobates cultripes* (CMFS 18251-18265; CM 52460[9];

UCM 44946-44951).

2.3 mi. WNW, 2010 hrs-2030 hrs, *Pelobates cultripes* (CMFS 18251-18265; CM 52460[9];

UCM 44946-44951).

2.5 mi. WNW, 2010 hrs-2030 hrs, *Pelobates cultripes* (CMFS 18251-18265; CM 52460[9];

UCM 44946-44951).

2.7 mi. WNW, 2010 hrs-2030 hrs, *Pelobates cultripes* (CMFS 18251-18265; CM 52460[9];

UCM 44946-44951).

4.5 mi. WNW, 2010 hrs-2030 hrs, *Pelobates cultripes* (CMFS 18251-18265; CM 52460[9];

UCM 44946-44951).

4.5 mi. WNW, a large chorus of *Hyla meridionalis* noted on both sides of the road.

3.5 mi. WNW, 2025 hrs, 15.0°C, one *Pelodytes ibericus* (CMFS 18240 [9]; CM 52449 [9]). A.O.R..

**1970, 7 January, Chipiona (N36.70769 W6.41560)**

3.7 mi. ESE, 2030 hrs-2100 hrs, 2 *Epidalea calamita* (CMFS 18245-18250; CM 52454-52459).

3.5 mi. ESE, 2030 hrs-2100 hrs, *Pelobates cultripes.* (CMFS 18251-18265; CM 52460[9],

UCM 44946-44951).

2.7 mi. ESE, 2030 hrs-2100 hrs, *Pelobates cultripes* (CMFS 18251-18265; CM 52460[9],

UCM 44946-44951).

0.4 mi. ESE, 2030 hrs-2100 hrs, *Pelobates cultripes* (CMFS 18251-18265; CM 52460[9],

UCM 44946-44951).

0.1 mi. ESE, 2030 hrs-2100 hrs, *Pelobates cultripes* (CMFS 18251-18265; CM 52460[9],

UCM 44946-44951).

**1970, 7 January** **Chipiona (N36.70769 W6.41560) -- 2 --**

2.0 mi. ESE, 1955 hrs-2215 hrs, *Pelobates cultripes* (CMFS 18251-18265; CM 52460[9],

UCM 44946-44951).

2.1 mi. ESE, 2132 hrs, 14.4°C, *Pelobates cultripes* (CMFS 18251-18265; CM 52460[9],

UCM 44946-44951).

2.2 mi. ESE, 1955 hrs-2215 hrs, *Pelobates cultripes* (CMFS 18251-18265; CM 52460[9],

UCM 44946-44951).

2.5 mi. ESE, 1955 hrs-2215 hrs, *Pelobates cultripes* (CMFS 18251-18265; CM 52460[9],

UCM 44946-44951).

2.8 mi. ESE, 1955 hrs-2215 hrs, *Pelobates cultripes* (CMFS 18251-18265; CM 52460[9],

UCM 44946-44951).

2.6 mi. ESE, 2050 hrs, 15°C, *Pelodytes ibericus* (CMFS 18240 [9]; CM 52449 [9]).

1.8 mi. ESE, 2050 hrs, 15°C, *Pelodytes ibericus* (CMFS 18240 [9]; CM 52449 [9]).

1.7 mi. ESE, 2050 hrs, 15°C, *Pelodytes ibericus* (CMFS 18240 [9]; CM 52449 [9]).

1.2 mi. ESE, 2050 hrs, 15°C, *Pelodytes ibericus* (CMFS 18240 [9]; CM 52449 [9]).

0.7 mi. ESE, One *Hyla meridionalis* (CMFS 18242-18244; CM 52451-54453).

1.9 mi. ESE, 2130 hrs-2150 hrs, *Hyla meridionalis* (CMFS 18242-18244; CM 52451-54453).

2.3 mi. ESE, 2130 hrs-2150 hrs, *Hyla meridionalis* (CMFS 18242-18244; CM 52451-54453).

2.2. mi ESE, 1955 hrs-2215 hrs, *Epidalea calamita* (CMFS 18245-18250; CM 52454-52459).

2.6 mi. ESE, 1955 hrs-2215 hrs, the only *Discoglossus g. jeanneae* (CMFS 18241; CM 52450).

3.2 mi. ESE, 1955 hrs-2215 hrs, *Pelodytes ibericus* (CMFS 18240 [9]; CM 52449 [9]).

3.3 mi. ESE, 1955 hrs-2215 hrs, *Pelodytes ibericus* (CMFS 18240 [9]; CM 52449 [9]).

4.5 mi. ESE, 1955 hrs-2215 hrs, *Pelodytes ibericus* (CMFS 18240 [9]; CM 52449 [9]).

6.0 mi. ESE, 1955 hrs-2215 hrs, *Pelodytes ibericus* (CMFS 18240 [9]; CM 52449 [9]).

4.7 mi. ESE, 1955 hrs -2215 hrs, *Pelobates cultripes* (CMFS 18251-18265; CM 52460[9],

UCM 44946-44951).

4.8 mi. ESE, 1955 hrs -2215 hrs, an *Epidalea calamita.*

6.0 mi ESE, 2215 hrs, *Hyla meridionalis* **large chorus,** rain began at 2200 hrs.

**1970, 8 January Rota-Puerto de Santa Maria-Rota**

2005 hrs – 2200 hrs

SW wind 15-23 mph, 96% RH, BP 29.755↓, and 15°C (at 2005 hrs).

Several *Pelobates cultripes* and *Pleurodeles waltl* seen while driving from Puerto gate of base to 1.8 mi. ESE of Puerto de Santa María (= Valdelagrana, N36.57945 W6.22406) on the connecting road.

**1970, 8 January Puerto de Santa Maria** Heavy flooding was noted in the normally dry collecting area with as much as two feet of standing water in some areas.

2020 hrs-2022 hrs, three *Pelobates cultripes* (CMFS 18271-18273; CM 52466-52468) collected A.O.R. on road to the beach between the two flooded fields. Between 2030 hrs and 2115 hrs, I collected 5 *Hyla meridionalis* from a chorus of between 35 and 50 specimens. Identified by CMFS 18266-18270 (CM 52461-52465). The water temperature was 15°C and the air temperature was also 15°C. It was noted that these *Hyla meridionalis* prefer the clumps of “needle” grass (*Juncus acutus*) which, in most cases, are partially submerged. Winds were heavy enough to cause ripples on the large ponds and it remained heavily overcast through the night.

**1970, 8 January Rota-Puerto de Santa Maria** **-2-**

While returning to the Base one *Epidalea calamita* (D.O.R.) was noted 2.9 mi. NNW of Puerto de Santa María and 2 *Pelobates cultripes* (CMFS 18274-18275; CM 52469-52470) were collected

3.3 mi. NNW of Puerto de Santa María (large individual, CM 52469), and 4.9 mi. NNW of Puerto de Santa María

**1970, 10 January Rota-Puerto Real-Algeciras-Los Barrios-Casas del Castaño-Alcalá de los Gazules-Jerez de la Frontera-Return to Naval Base**

1800 hrs – 2400 hrs; SW wind 20 – 34 mph, cumulonimbus clouds, heavily overcast, 15°C at

start.

**1970, 10 January, Puerto Real, ~N36.53761 W6.16818**

32.4 mi. SSE on N-340, one *Pelobates cultripes* seen. A few other *Pelobates cultripes* and

*Pelodytes ibericus* observed on the way to Algeciras.

**1970, 10 January Puerto Real** At 2007 hrs a heavy rain began.

**1970, 10 January, Algeciras (N36.12751 W5.44806), C-440**

4.1 mi. WNW on C-440, 2010 hrs, 13.9°C, one *Hyla meridionalis* (CMFS 18276-18279;

CM 52471-52474) A.O.R..

4.1 mi. WNW, 2010 hrs, 13.9°C, one *Discoglossus g. jeanneae* (CMFS 18280-18282;

CM 52475-52477) A.O.R..

4.8 mi. WNW, 12.8°C., *Discoglossus g. jeanneae* (CMFS 18280-18282; CM 52475-52477 )

**1970, 10 January Algeciras, on C-440** Rain reduced to slight drizzle at 2015.

**1970, 10 January, Los Barrios (N36.18209 W5.48920), C-440 (1969-1972)**

2.4 mi. NW, 2030 hrs, 13.9°C, *Discoglossus g. jeanneae* (CMFS 18280-18282;

CM 52475-52477) A.O.R..

3.5 mi. NW, 2031 hrs, 14.4°C, and *Hyla meridionalis* (CMFS 18276-18279; CM 52471-52474)

under light rain.

4.4. mi. NW, 2035 hrs, 13.3°C, another *Hyla meridionalis* (CMFS 18276-18279; CM 52471-

52474) collected.

5.2 mi NW, 2040 hrs, 12.2°C, under heavy rain a *Pelophylax perezi* (CMFS 18283-18284;

CM 52478-52479)

**1970, 10 January, Los Barrios (N36.18209 W5.48920), C-440 (1969-1972) -2-**

6.9 mi. NE, 2048 hrs, 13.3°C, juvenile *Pelophylax perezi* (CMFS 18283-18284;

CM 52478-52479) A.O.R..

**1970, 10 January Los Barrios** Road in this area contains much more surface water and the mud covering the road surface is indicative of previous flooding.

**1970, 10 January, Casas del Castaño (N36.30792 W5.59662), C-440**

4.5 mi. SSE, 2100 hrs, 12.2°C, one *Pelodytes ibericus* (CMFS 18285-18286;

CM 52480-52481) collected A.O.R..

0.7 mi. SSE at 2115 hrs, 12.2°C, *Hyla meridionalis* (18276-18279; CM 52471-52474).

**1970, 10 January, Casas del Castaño -2-**

0.7 mi. SSE at 2115 hrs, 12.2°C, one *Pelodytes ibericus* (CMFS 18285-18286; CM 52480-

52481) A.O.R..

0.9 mi. NW a small group of *Hyla meridionalis* heard calling off to the S.

7.4 NW a chorus of *Hyla meridionalis* in the southern portion of area.

7.7 mi. NW a chorus of *Hyla meridionalis* in the southern portion of area.

8.5 mi. NW, 2145 hrs, 12.8°C, *Pelodytes ibericus* (CMFS 18287-18289; CM 52482-52484)

A.O.R..

8.8 mi. NW, a chorus of *Hyla meridionalis* from flooded area to south.

**Casas del Castaño 1970, 10 January** 2.4 mi. NW, and 6.3 mi. NW considerable road water observed. 8.8 mi. NW Much of the road surface is under water (1/2 – 1” deep) and in some areas there is considerable flooding.

**1970, 10 January, Alcalá de los Gazules, (N36.43994 W5.71962), C-440**

5.1 mi. SE, 2150 hrs, 12.8°C, one *Pelodytes ibericus* (CMFS 18287-18289; CM 52482-52484)

A.O.R.

5.1 mi. SE, 2150 hrs, 12.8°C, *Hyla meridionalis* chorus noted from south.

4.8 mi. SE another *Hyla meridionalis* chorus heard from south.

4.7 mi. SE, *Pelobates cultripes* (CMFS 18291; CM 52486)

4.7 mi. SE, area of *Hyla meridionalis* chorus.

1.9 mi. SE, chorus composed of large aggregation of *Hyla meridionalis*.

1.6 mi. SE, 2206 hrs, 12.2°C, *Discoglossus g. jeanneae* seen A.O.R.

1.6 mi. SE, 2206 hrs, 12.2°C, a large aggregation of *Hyla meridionalis* heard.

1.3 mi. SE, 2209 hrs, 12.2°C, *Hyla meridionalis* (CMFS 18290; CM 52485) captured A.O.R.

1.3 mi. SE, a small fox, tannish-brown in color, and with two black stripes on forehead extending from ear through the eye to nose was seen. Locomotive patterns were much like those of a raccoon and the size was that of a small dog-large raccoon. It had a short, and “fluffy”, tail and its build was heavy bodied with “opossum-like” hair. (Probably *Vulpes vulpes*)

0.7 mi. SE, 2213 hrs, 13.3°C, *Pelodytes ibericus* (CMFS 18287-18289; CM 52482-52484) A.O.R..

**1970, 10 January, Alcalá de Los Gazules, (N36.44084 W5.72006), C-440** **NW (Rt. 8)**

2.2 mi. WNW a chorus of *Hyla meridionalis* heard from south.

**1970, 10 January, Alcalá de los Gazules, (N36.44084 W5.72006), C-440** **NW (Rt. 8) -2-**

4.3 mi. WNW, 2232, 12.8°C, *Pelodytes ibericus* (CMFS 18293; CM 52488) A.O.R.

(specimen exhibited a “sticky” mucous secretion with a mint-like smell (almost a sweet, pine odor.). Specimens which exude this odor generally exhibit dark (brown-black) NUPTIAL PADS on thumbs and fore-finger).

12.9 mi. WNW, chorus of *Hyla meridionalis* heard from south.

**1970, 10 January, Jerez de la Frontera (Cartuja de Santa María de la Defenó), to SE (N36.65556 W6.09378), C-440 (1969-1972)**

9.8 mi. SE and there’s a river on the road for about 150 m. 14.4 mi. SE, considerable flowing water on the road

7.5 mi. SE, *Pleurodeles waltl* seen A.O.R. but not collected.

7.2 mi. SE, 2347 hrs, 11.7°C, *Pleurodeles waltl* (CMFS 18294; CM 52489) collected A.O.R..

6.3 mi. SE, another *Pleurodeles waltl* seen A.O.R..

**1970, 11 January, Base Naval de Rota, General (~N 36.627812 W6.331415)**

*Epidalea calamita* (CMFS 18295; CM 52490).

**1970, 11 January, Jerez de la Frontera** vicinity: 0014 hrs – 0030 hrs

**1970, 11 January, Jerez de la Frontera**, **(from N36.68000 W6.15093, 3 miles NW, then at**

**N36.69037 W6.20347 to West), unmarked road, (A-2078)**

10.2 mi. SW (N36.65246 W6.31255, A-491), 0014 hrs, 12.8°C, *Epidalea calamita* (CMFS

18292; CM 52487).

Survey end 0030 hrs, partially overcast, 13.3°C.

**1970, 11 January, Villamartín-Bornos-Arcos de la Frontera-Jerez de la Frontera**

1855 hrs – 2100 hrs.

**1970, 11 January, Villamartín (N36.85870 W5.63933), N-342**

1.4 mi. WSW, 1855 hrs, 11.7°C and pouring rain, one *Pelophylax perezi* (CMFS 18319-18321;

CM 52514-52516) A.O.R. (injured leg).

1.9 mi. WSW a *Discoglossus g. jeanneae* (CMFS 18314-18318; CM 52509-52513) collected.

2.0 mi. WSW, another *Discoglossus g. jeanneae* (CMFS 18314-18318; CM 52509-52513).

2.2 mi. WSW, *Hyla meridionalis* (CMFS 18307-18312; CM 52502-52507) A.O.R.

2.2 mi. WSW, *Discoglossus g. jeanneae* (CMFS 18314-18318; CM 52509-52513) collected.

2.7 mi. WSW, 2 two *Hyla meridionalis* (CMFS 18307-18312; CM 52502-52507).

2.7 mi. WSW, *Pelophylax perezi* (CMFS 18319-18321; CM 52514-52516) collected.

2.8 mi. WSW, 1920 hrs, 11.7°C, *Hyla meridionalis* (CMFS 18307-18312; CM 52502-52507).

3.2 mi. WSW, *Hyla meridionalis* (CMFS 18307-18312; CM 52502-52507) A.O.R..

4.1 mi. WSW, *Hyla meridionalis* (CMFS 18307-18312; CM 52502-52507).

4.1 mi. WSW, *Discoglossus g. jeanneae* (CMFS 18314-18318; CM 52509-52513) collected

A.O.R..

4.5 mi. WSW, *Pelophylax perezi* (CMFS 18319-18321; CM 52514-52516).

4.8 mi. WSW, *Epidalea calamita* (CMFS 18313; CM 52508) collected.

6.7 mi. WSW, *Discoglossus g. jeanneae* (CMFS 18314-18318; CM 52509-52513) A.O.R.

There was little or no standing water to this point (4.8 mi. WSW); considerable road flooding was found at 6.1 mi. WSW.

At 7.1 mi. WSW a veritable stream is flowing down the road. 7.3 mi. WSW the Río Guadalete has flooded her banks at least 15 m to either side.

**1970, 11 January, Bornos (N36.81854 W5.74740), N-342**

0.7 mi. SSW, extremely windy, *Epidalea calamita* (CMFS 18301-18306; CM 52496-

52501).

0.8 mi. SSW, extremely windy, *Epidalea calamita* (CMFS 18301-18306; CM 52496-

52501).

1.2 mi. SSW an *Epidalea calamita* seen A.O.R..

1.3 mi. SSW another *Epidalea calamita* (CMFS 18301-18306; CM 52496- 52501) collected.

1.4 mi. SSW a *Pelobates cultripes* (CMFS 18300) A.O.R..

**1970, 11 January, Bornos -2-**

0.6 mi. SSW a heavy fog has set in on N-342; 2.1 mi. SSW and the fog has lifted. Between 4.3 and 4.5 mi. SSW, considerable flooding across the road and at 4.5 mi. SSW a small stream was crossing the road.

**1970, 11 January, Arcos de la Frontera, (N36.75559 W5.82017), N-342**

1.4 mi. NNE, 2009 hrs, 13.9°C, *Discoglossus g. jeanneae* seen A.O.R..

0.9 mi. NNE, *Epidalea calamita* (CMFS 18301-18306; CM 52496- 52501) A.O.R. and the rain is

slowing down.

0.5 mi. NNE, 2009 hrs, *Epidalea calamita* (CMFS 18301-18306; CM 52496-52501) A.O.R.

0.4 mi. NNE, 2009 hrs, *Epidalea calamita* (CMFS 18301-18306; CM 52496-52501) A.O.R.

3.0 mi. WSW, 2037 hrs, two *Pelophylax perezi* (CMFS 18296-18297; CM 52491-52492).

7.7 mi. WSW a *Hyla meridionalis* (CMFS 18298; CM 52493) collected.

5.8 mi. ENE on N-342 a D.O.R. *Rattus* seen. Several other *Rattus* have been noticed along this

route to Arcos de la Frontera this evening.

2.3 mi. ENE a *Discoglossus g. jeanneae* (CMFS 18299; CM 52494) collected A.O.R. and at

0.6 mi. NNE the road is flooded.

1.6, 2.2, and 3.3 mi. WSW considerable flooding

Considerable flooding at 4.1 and 4.5 mi. WSW.

5.5 and 5.0 mi. ENE road flooding prevalent.

1.5 mi. ENE more road flooding.

**1970, 13 January, NAVBASE-Sanlúcar de Barrameda-Trebujena-Jerez de la Frontera**

1835 hrs – 2230 hrs, 13.9°C, cumulonimbus clouds, much flooded land noted E of Naval Base.

3.0 mi. NW of base both sides of road flooded with much surface water on road. 6.0 and 6.2 mi. NW and 9.0 mi. NW there is considerable flooding.

**1970, 13 January, Intersection of C-440 (to Sanlúcar de Barrameda) with unmarked road (A-2078 in 2013; N36.69037 W6.20347) to NAVAL BASE**

4.9 mi. WNW, *Hyla meridionalis* heard from S. in flooded field (chorus of between 10- 20).

6.2 mi. WNW, *Hyla meridionalis*  heard from S. in flooded field (chorus of between 10- 20).

6.7 mi. WNW, *Pelodytes ibericus* seen A.O.R..

6.8 mi. WNW, 1915 hrs, 12.2°C, *Hyla meridionalis* (CMFS 18327-18328; CM 52522-52523) captured.

6.8 mi. WNW, 1915 hrs, 12.2°C, 8-9 *Hyla meridionalis* calling from south.

0.7, 2.0, 3.3, 4.4, and 6.1 mi. WNW on C-440 much standing water (running in places) noted on highway

**1970, 13 January, Sanlúcar de Barrameda** (**N36.77025 W6.34666)**, **C-440**

2.6 mi. ESE, *Hyla meridionalis*  (CMFS 18327-18328; CM 52522-52523) taken A.O.R.

2.4 mi. ESE, *Pelodytes ibericus* (CMFS 18329-18330; CM 52524-52525) taken A.O.R..

1.8 mi ESE, *Hyla meridionalis* heard calling from south, and standing water noted on road.

1.2 mi. ESE, *Pelodytes ibericus* (CMFS 18329-18330; CM 52524-52525) collected A.O.R..

1.0 mi. ESE, large chorus of *Hyla meridionalis* calling from south

0.9 mi. ESE, large chorus of *Hyla meridionalis* calling from both N + S

**1.8 mi ESE standing water noted on road.**

**1970, 13 January, Trebujena (N36.86862 W6.17539), C-441**

1.3 mi. NE, 1943 hrs, 13.3°C, *Discoglossus g. jeanneae* taken A.O.R..

1.3 mi. NE, 1943 hrs, 13.3°C, several *Hyla meridionalis* heard.

1.4 mi. NE, 2 *Pelodytes ibericus* (CMFS 18325[19]; CM 52520 [19]) A.O.R..

1.7 mi. NE, 2 *Pelodytes ibericus* (CMFS 18325[19] ;CM 52520 [19]) A.O.R..

1.9 mi. NE, 1 *Pelodytes ibericus* (CMFS 18325[19] ;CM 52520 [19]) A.O.R..

1.9 mi. NE, chorus of *Hyla meridionalis.*

2.4 mi. NE, large chorus of *Hyla meridionalis* heard from W.

3.4 mi. NE, *Pelodytes ibericus* seen.

3.4 mi. NE, 1 *Pelodytes ibericus* (CMFS 18325[19] ; CM 52520 [19]) collected A.O.R..

4.1 mi. NE, *Hyla meridionalis* calling from W.

4.2 and 5.1 mi. NE road, respectively under water and above water but land around flooded.

5.1 mi. NE , several *Hyla meridionalis* calling

5.1 mi. NE, *Pleurodeles waltl* (CMFS 18324; CM 52519) A.O.R..

5.1 mi. NE, *Pelodytes ibericus* (CMFS 18325[19] ; CM 52520 [19]) A.O.R..

6.4 mi. NE, *Epidalea calamita* (CMFS 18323; CM 52518) collected A.O.R..

7.5 mi. NE, chorus of *Hyla meridionalis* from W and E, very strong in W.

0.8 mi. NE, the road is flooded and covered with mud, indicating previous flooding.

5.7 mi. NE considerable water over road’s surface

**1970, 13 January, Trebujena (N36.86862 W6.17539), CA-601**

6.1 mi. SW, *Pelodytes ibericus* observed A.O.R..

5.2 mi. SW, chorus of *Hyla meridionalis* stopped.

4.6 mi. SW, chorus of *Hyla meridionalis* resumed on W side of road.

4.1 mi. SW, *Pelodytes ibericus* CMFS (18325[19] ;CM 52520 [19]) taken A.O.R.

4.1 mi. SW, large chorus of *Hyla meridionalis* (from E).

**1970, 13 January, Trebujena -2-**

3.9 mi. SW, a large chorus of *Hyla meridionalis* from apparent lake to E.

3.3 mi. SW, 2122 hrs, 15°C, *Pelodytes ibericus* taken A.O.R.

(CMFS 18325[19] ; CM 52520 [19]).

3.2 mi. SW, 2122 hrs, 15°C, *Pelodytes ibericus* taken A.O.R.

(CMFS 18325[19] ; CM 52520 [19]).

2.5 mi. SW, 2122 hrs, 15°C, *Pelodytes ibericus* taken A.O.R.

(CMFS 18325[19] ; CM 52520 [19]).

2.0 mi. SW, *Hyla meridionalis* seen A.O.R.

1.8 mi. SW, 2140 hrs, 13.9°C, *Pelodytes ibericus* (CMFS 18325[19] ;CM 52520 [19]) collected A.O.R.

1.6 mi. SE, 2155 hrs, 11.1°C, *Pelodytes ibericus* (CMFS 18326[7]; CM 52521 [7])

collected A.O.R..

2.2 mi. SE, 2155 hrs, 11.1°C, *Pelodytes ibericus* (CMFS 18326[7] ; CM 52521 [7])

collected A.O.R..

5.3 mi. SE, 2155 hrs, 11.1°C, 2 *Pelodytes ibericus* (CMFS 18326[7] ; CM 52521 [7])

collected A.O.R..

8.3 mi. SE, 2155 hrs, 11.1°C, *Pelodytes ibericus* (CMFS 18326[7] ; CM 52521 [7])

collected A.O.R..

8.5 mi. SE, 2155 hrs, 11.1°C, *Pelodytes ibericus* (CMFS 18326[7] ; CM 52521 [7])

collected A.O.R..

2.2 mi. SE, *Hyla meridionalis* calling from N.

4.5 mi. SE, *Hyla meridionalis* calling

6.4 mi. SE, *Hyla meridionalis* calling (N)

8.3 mi. SE, *Hyla meridionalis* calling (N & S)

8.5 mi. SE, *Hyla meridionalis* calling (N & S)

5.4 mi. SW considerable water on highway

3.9 mi. SW, Much water on land in West.

No surface water noted to 3.7 mi. SE but the road was under water (1/2 – 1” deep) at 8.2 and 8.3 mi. SE.

**1970, 13 January, Jerez de la Frontera (N36.68011 W6.15185), C-440**

3.3 mi. NW, *Pelodytes ibericus* (CMFS 18326[7]; CM 52521 [7])) collected

2.1 mi. NW, chorus of *Hyla meridionalis* from N.

C-440 under water 4.2 mi. and 1.4-1.2 mi. NW.

**1970, 14 January, Jerez de la Frontera- La Barca de la Florida-Arcos de la Frontera-Jerez**

1828 hrs -2240 hrs, 12.8°C, SW wind, sky pretty cloudy (cumulus, some stratus) and intermittent wind.

**1970, 14 January, Jerez de la Frontera (N36.68617 W6.09886), CA-502**

2.6 mi. ESE, 1910 hrs, 13.3°C, *Pelophylax perezi* (CMFS 18340-18341; CM 52535-52536)

4.6 mi. ESE, 1917 hrs, 13.3°C, *Pelophylax perezi* (CMFS 18340-18341; CM 52535-52536)

5.7 mi. ESE, Chorus of *Hyla meridionalis* (N)

6.3 mi. ESE, Chorus of *Hyla meridionalis* (N + S)

8.4 (mi. ESE, Chorus of *Hyla meridionalis* N)

9.2 mi. ESE, Chorus of *Hyla meridionalis* (N)

9.6 mi. ESE, Chorus of *Hyla meridionalis* (N)

10.7 mi. ESE, Chorus of *Hyla meridionalis* (N & S)

13.1 mi. ESE, Chorus of *Hyla meridionalis* (N)

14.0 (mi. ESE, Chorus of *Hyla meridionalis* (N)

15.3 mi. ESE, Chorus of *Hyla meridionalis* (N)

15.7 mi. ESE, Chorus of *Hyla meridionalis* (N & S)

14.5 mi. ESE, *Hyla meridionalis* (CMFS 18338; CM 52533) collected

9.1 mi. ESE, *Epidalea calamita* (CMFS 18339[5]; CM 52524, UCM 44925-44928) A.O.R..

9.2 mi. ESE, *Epidalea calamita* (CMFS 18339[5]; CM 52524, UCM 44925-44928) A.O.R..

14.1 mi. ESE, 2015 hrs, 13.3°C, *Epidalea calamita* (CMFS 18339[5]; CM 52524, UCM 44925- 44928) A.O.R..

15.3 mi. ESE, *Epidalea calamita* D.O.R..

15.5 mi. ESE, *Epidalea calamita* (CMFS 18339[5] ]; CM 52524, UCM 44925-44928) A.O.R..

15.7 mi. ESE, *Epidalea calamita* (CMFS 18339[5]; CM 52524, UCM 44925-44928) A.O.R..

9.2 mi. ESE, Chorus of *Hyla meridionalis* intermixed with *Epidalea calamita,* (N).

15.2 mi. ESE, Chorus of *Hyla meridionalis* intermixed with *Epidalea calamita.* (S)

15.6 mi. ESE, *Pelobates cultripes* D.O.R..

Flooding of road noted at 13.1, 14.0 (S), 14.1, and 15.7 mi. ESE.

**1970, 14 January, Arcos de la Frontera (N36.74662 W5.82438), C-343 (A-389)**

8.0 mi. SSW, *Hyla meridionalis* heard (W & E).

7.3 mi. SSW, *Hyla meridionalis* heard (E & W).

6.4 mi. SSW, *Hyla meridionalis* heard (E).

7.2 mi. SSW, 2055 hrs, 12.2°C, *Epidalea calamita* (CMFS 18333; CM 52528) collected.

4.7 mi. SSW, *Pelodytes ibericus* (CMFS 18337; CM 52532) A.O.R..

3.7 mi. SW, 2120 hrs, 11.7°C, *Discoglossus g. jeanneae* (CMFS 18334-18336; CM 52529-

52531) collected.

3.3 mi. SW, 2123 hrs, 11.7°C, *Pelophylax perezi* (CMFS 18332; CM 52527) collected.

1.6 mi. SW, 2132 hrs, 11.1°C, 2 *Discoglossus g. jeanneae* (CMFS 18334-18336; CM 52529-

52531) collected.

E portion of the land is under water at 7.3 mi. SSW and the W side is extremely wet.

**1970, 14 January, Arcos de la Frontera (N36.75559 W5.82017), N-342**

0.4 mi. WSW, 2240 hrs , 11.1°C, *Discoglossus g. jeanneae* (CMFS 18331; CM 52526)

**1970, 16 January, Jimena de la Frontera and San Pablo de Buceite**

2226 hrs – 2400 hrs, 7.8°C. Partially overcast.

**1970, 16 January, Jimena de la Frontera (N36.43890 W5.44437), C-333**

17.5 mi. S, *Pleurodeles waltl* seen D.O.R..

13.4 mi. S, 2247 hrs, 5.6°C, *Discoglossus g. jeanneae* (CMFS 18342-18343; CM 52537-52538)

A.O.R..

**1970, 16 January, Jimena de la Frontera (N36.43890 W5.44437), C-333 -2-**

6.6 mi. S, 2349 hrs, 8.9°C, one *Pelodytes ibericus* (CMFS 18344; CM 52539) A.O.R..

6.6 mi. S, 2349 hrs, 8.9°C, a small chorus (2-3) *Hyla meridionalis*  heard from W.

**1970, 16 January, San Pablo de Buceite (N36.463670, W5.414405)**, 0.2 mi. SW on unmarked

road (=CA-9021), 2354 hrs, 12.2°C, one *Discoglossus g. jeanneae* (CMFS 18342-18343;

CM 52537-52538) A.O.R..

**1970, 17 January, Jimena de la Frontera-Algar-Naval Base-Arcos de la Frontera-Villamartín-Algodonales-Olvera,** and return

0011 hrs- 0200hrs, 7.2°C; 1934 hrs, 11.1°C; 2325 hrs, 11.1°C.

**1970, 17 January, Jimena de la Frontera (N36.43890 W5.44437), C-333**

2.4 mi. NW, *Bufo spinosus* (CMFS 18346; CM 52541) collected A.O.R..

2.6 mi. NW the road is almost under water.

**Provincia de Málaga**

**1970, 17 January, Algar,** 3.5 mi. SE of intersection with road to Algar (N36.53165 W5.57978; CA-503) on unmarked road (C-333) to Jimena de la Frontera, 0147 hrs, 4.4°C, one *Epidalea calamita* collected A.O.R..

**Provincia de Cádiz**

Elevation marker at Galis indicates 417 M.

1934 hrs, 11.1C, light rain

**1970, 17 January, Base Naval de Rota, General, (~N 36.627812 W6.331415)**

2 *Epidalea calamita* observed on base.

**1970, 17 January, Base Naval de Rota, Puerto de Santa María gate** **(N36.625823**

**W6.313244)**

1.6 mi. NW, *Rhinechis scalaris* (CMFS 18347; CM 52542) D.O.R.

1.6 mi. NW, *Hyla meridionalis* D.O.R..

**1970, 17 January, Arcos de la Frontera (N36.75559 W5.82017), N-342**

9.3 mi. NE, *Epidalea calamita* observed A.O.R..

**1970, 17 January, Villamartín (N36.85870 W5.63933), N-342**

3.9 mi. ENE, small chorus of *Hyla* heard in N.

4.6 mi. ENE, *Pelophylax perezi* observed A.O.R..

5.9 mi. ENE, *Discoglossus g. jeanneae* seen A.O.R./D.O.R.(not collected).

1.2 mi. ENE, the road is flooded with N side of road under water

**1970, 17 January, Algodonales (N36.87596 W5.40170), N-342 (A-384)**

6.2 mi. (1 calling) and 5.7 mi. (several calling) SW, choruses of *Hyla* from N.

5.7 mi. SW, 2200 hrs, 13.3°C, *Discoglossus g. jeanneae* (CMFS 18349; CM 52544) A.O.R..

**1970, 17 January, Algodonales (N36.87596 W5.40170), N-342 (A-384) -2-**

1.1 mi. SW, *Discoglossus g. jeanneae* seen A.O.R.

5.6 mi. SW, 2200 hrs, 13.3°C, a *Epidalea calamita* (CMFS 18348; CM 52543) collected.

1.5 mi. NE, 2239 hrs., 10°C, *Pelodytes ibericus* (CMFS 18350; CM 52545) collected A.O.R..

2.7 mi NE, 2245 hrs, 11.7°C, *Epidalea calamita* (CMFS 18351-18353; CM 52546-52548)

collected A.O.R..

3.6 mi. NE, *Epidalea calamita* (CMFS 18351-18353; CM 52546-52548) collected A.O.R..

4.4 mi. NE, 2256 hrs, 9.4°C, *Epidalea calamita* (CMFS 18351-18353; CM 52546-52548)

collected A.O.R..

3.7 mi. ENE, *Hyla meridionalis* (CMFS 18355; CM 52550) collected A.O.R.

3.6 mi. NE, 2255 hrs, 11.1°C, *Hyla* heard

3.7 mi. ENE, *Hyla meridionalis* chorus from S.

**1970, 17 January, Olvera N36.92582 W5.25490, N-342**

2.7 mi. W (2325 hrs, 11.1°C) one *Pelophylax perezi* (CMFS 18354; CM 52549) A.O.R..

**1970, 18 January**, 0005 hrs-0120 hrs, 7.8°C.

**1970, 18 January**, **Olvera N36.92582 W5.25490, N-342**

6.0 mi. WSW, *Epidalea calamita* (juv) (CMFS 18356-18357; CM 52551-52552) collected A.O.R..

6.2 mi. WSW, 0010 hrs, 7.8°C, *Discoglossus g. jeanneae* (CMFS 18358-18359; CM 52553-

52554) collected A.O.R..

6.5 mi. ENE, 0012 hrs, 7.8°C, *Pelodytes ibericus* (CMFS 18360-18361; CM 52555-52556)

collected A.O.R..

6.4 mi. ENE a *Epidalea calamita* (CMFS 18356-18357; CM 52551-52552) collected A.O.R..

5.6 mi. ENE, 0017 hrs, 10°C, a *Discoglossus g. jeanneae* (CMFS 18358-18359; CM 52553-

52554) collected A.O.R.

4.7 mi. ENE, *Discoglossus g. jeanneae* seen but not collected.

3.1 mi. ENE, 0037 hrs, *Pelodytes ibericus* (CMFS 18360-18361; CM 52555-52556) A.O.R..

*Discoglossus g. jeanneae* has a tendency to lower its head and elevate its rear in a doglike fashion (with forefeet close to head) when approached. Unken reflex (?).

*Epidalea calamita* flattens its body in an attempt to be close to the ground whenever it’s approached.

**1970, 18 January**, **Algodonales (N36.87596 W5.40170), N-342**

3.2 mi. SW, *Pleurodeles waltl* seen A.O.R..

3.4 mi. WSW, *Hyla* seen A.O.R..

**1970, 20 January, Medina Sidonia-Chiclana de la Frontera**

2010 hrs-2220 hrs, 13.3°C-10.6°C

**1970, 20 January, Medina Sidonia** (**N36.45604 W5.95148), C-346**

2.3 mi. SW, 2105 hrs, *Pelodytes ibericus* (?) observed A.O.R..

2.4 mi. SW, *Hyla* chorus, south of the road.

**1970, 20 January, Medina Sidonia** (**N36.45604 W5.95148), C-346 -2-**

3.4 mi. SW, *Hyla* chorus, south of the road.

3.7 mi. SW, *Hyla* chorus, south of the road.

4.7 mi. SW, *Hyla* chorus, south of the road.

5.2 mi. SW, *Hyla* chorus, south of the road.

5.5 mi. SW, *Hyla* chorus, south of the road.

5.7 mi. SW, *Hyla* chorus, south of the road.

6.5 mi. SW, *Hyla* chorus, south of the road.

5.7 mi. SW, 2127 hrs, 13.9°C, *Pelodytes ibericus* (CMFS 18362; CM 52578) collected.

6.2 mi. SW, 2135 hrs, 12.8°C, *Pelodytes ibericus* (CMFS 18363 CM 52558) collected.

**1970, 20 January, Chiclana de la Frontera (N36.42156 W6.14469), C-346**

7.0 mi. ENE, *Hyla* chorus heard from south side of road.

6.6 mi. ENE, *Hyla* chorus heard from south side of road.

5.9 mi. ENE, *Hyla* chorus heard from south side of road.

5.5 mi. ENE, *Hyla* chorus (15-20 calling) heard from south side of the road.

3.7 mi. ENE, *Hyla* chorus heard from south side of road.

0.5 mi. ENE, *Hyla* chorus heard from south side of road.

2.5 mi. ENE, 2214 hrs, 11.7°C, *Discoglossus g. jeanneae* seen A.O.R. (not collected).

1.3 mi. ENE, *Discoglossus g. jeanneae* (CMFS 18364; CM 52559) collected.

**1970, 23 January, Rota (N36.62899 W6.35430)-Chipiona (N36.70769 W6.41560) Road**

1910 hrs-2230 hrs

12.8°C beginning, intermittent rain. [2215 hrs = S winds 13-17 mph, 100% RH, BP 30.020 and ↑, 12.2°C].

All ♂ *Pelodytes* sent to A. James Delahoussaye at Arizona State University, Tempe, Ariz. on 24 Jan 70 for sperm morphology work. Those not sent designated CMFS 18368 (9).

**1970, 23 January, Rota (N36.62899 W6.35430)**

2.0 mi. NW, *Pelobates cultripes* (CMFS 18369-18372; CM 52564-52567) collected A.O.R..

2.2 mi. NW, *Pelobates cultripes* (CMFS 18369-18372; CM 52564-52567) collected A.O.R..

2.4 mi. NW, *Pelobates cultripes* (CMFS 18369-18372; CM 52564-52567) collected A.O.R..

2.9 mi. NW *Pelobates cultripes* (CMFS 18369-18372; CM 52564-52567) taken.

5.2 mi. NW, *Pelobates cultripes* (CMFS 18369-18372; CM 52564-52567) collected A.O.R..

2.8 mi. NW, *Pleurodeles waltl* (CMFS 18376-18378; CM 525571-52573) collected A.O.R..

3.3 mi. NW, 2 *Pleurodeles waltl* (CMFS 18376-18378; CM 525571-52573) collected A.O.R..

4.5 mi. NW a large *Pleurodeles waltl* (CMFS 18376-18378; CM 525571-52573) collected.

3.2 mi. NW, (♂) *Pelodytes ibericus* (part CMFS 18368[9]; CM 52563[9]) A.O.R..

3.9 mi. NW, (♂) *Pelodytes ibericus* (part CMFS 18368[9]; CM 52563[9]) A.O.R..

4.2 mi. NW, (♂) *Pelodytes ibericus* (part CMFS 18368[9]; CM 52563[9]) A.O.R..

4.3 mi .NW, (♂) *Pelodytes ibericus* (part CMFS 18368[9]; CM 52563[9]) A.O.R..

4.4 mi. NW, (♂) *Pelodytes ibericus* (part CMFS 18368[9]; CM 52563[9]) A.O.R..

4.7 mi. NW, (♂) *Pelodytes ibericus* (part CMFS 18368[9]; CM 52563[9]) A.O.R..

5.2 mi. NW, (♂) *Pelodytes ibericus* (part CMFS 18368[9]; CM 52563[9]) A.O.R..

**1970, 23 January, Rota (N36.62899 W6.35430) -2-**

6.4 mi. NW, (♂) *Pelodytes ibericus* (part CMFS 18368[9]; CM 52563[9]) A.O.R..

6.6 mi. NW, (♀) *Pelodytes ibericus* (part CMFS 18368[9]; CM 52563[9]) A.O.R..

6.5 mi NW, (3 ♀) *Pelodytes ibericus* (part CMFS 18368[9]; CM 52563[9]) A.O.R..

6.1 mi. NW, (♀) *Pelodytes ibericus* (part CMFS 18368[9]; CM 52563[9]) A.O.R..

3.9 mi. NW, (♀) *Pelodytes ibericus* (part CMFS 18368[9]; CM 52563[9]) A.O.R..

4.6 (♂?) mi. NW, *Pelodytes ibericus* (part CMFS 18368[9]; CM 52563[9]) A.O.R..

4.3 mi. NW, ♂ *Hyla meridionalis* (CMFS 18365-18367; CM 52560-52562) collected.

2.6 mi. NW, ♀ *Hyla meridionalis* (CMFS 18365-18367; CM 52560-52562) collected.

**1970, 23 January, Chipiona (N36.70769 W6.41560)**

5.3 mi. SE, *Pelobates cultripes* D.O.R..

5.3 mi. SE *Pelodytes ibericus* D.O.R..

4.4 mi. SE, 2016 hrs, 13.9°C, ♂ & ♀ *Pelodytes ibericus* A.O.R..

4.1 mi. SE, (♂) *Pelodytes ibericus* collected A.O.R..

3.8 mi. SE, (♀?), *Pelodytes ibericus* (part CMFS 18368[9]; CM 52563[9]) A.O.R..

3.2 mi. SE, 2030 hrs, 14.4°C, ♂ *Pelodytes ibericus* (part CMFS 18368[9]; CM 52563[9]) A.O.R.. 2.7 mi. SE, ♀ *Pelodytes ibericus* (part CMFS 18368[9]; CM 52563[9]) A.O.R..

2.6 mi. SE, ♂ *Pelodytes ibericus* (part CMFS 18368[9]; CM 52563[9]) A.O.R..

4.2 mi. SE, 2♂♂ *Pelodytes ibericus* (part CMFS 18368[9]; CM 52563[9]) A.O.R..

4.4 mi. SE, 2♂♂ + ♀ *Pelodytes ibericus* (part CMFS 18368[9]; CM 52563[9]) A.O.R..

2.3 mi. SE, ♀ *Hyla meridionalis* (CMFS 18365-18367; CM 52560-52562) collected

3.7 mi. SE, *Epidalea calamita* (CMFS 18373-18375; CM 52568-52570) A.O.R..

4.3mi. SE,  *Epidalea calamita* (CMFS 18373-18375; CM 52568-52570) A.O.R..

5.2 mi. SE, 2130 hrs, 12.8°C, *Epidalea calamita* (CMFS 18373-18375; CM 52568-52570) A.O.R..

**1970, 28 January, Arcos de la Frontera-Algar-Tempul-San José del Valle-Paterna de Rivera,**  2017 hrs-2400 hrs, 11.1°C. Raining in Rota but somewhat clear from Arcos-Algar.

**1970, 28 January, Puerto de Santa María (= Valdelagrana, N36.57945 W6.22406)**

ES 146 Orthoptera, Gryllotalpidae (CM accession 24076) presented by E. E. Epting, collector.

**1970, 28 January, Base Naval de Rota, General (~N 36.627812 W6.331415)**

*Epidalea calamita* (CMFS 18379; CM 52574)

**1970, 28 January, Arcos de la Frontera, (N36.75559 W5.82017), N-342**

5.2 mi. SE, 2030 hrs, 10°C, *Epidalea calamita* (CMFS 18380-18381; CM 52575-52576)

6.3 mi. SE , *Epidalea calamita* (CMFS 18380-18381; CM 52575-52576) collected

**1970, 28 January, Algar (N36.65531 W5.65956), CA-6104**

6.1 mi. NW, 1 *Hyla meridionalis* calling from N.

3.3 mi. NW, 3-4 *Hyla meridionalis* calling from N.

4.0 mi. NW, 2-3 *Hyla meridionalis* calling from N.

2.2 mi. NW, 1 *Hyla meridionalis* calling from N.

1.9 mi. NW. *Hyla meridionalis* calling from area N.

**1970, 28 January, Algar (N36.65531 W5.65956), CA-6104 -2-**

4.0 mi. NW, 2050 hrs, 8.9°C, *Pelophylax perezi* seen A.O.R..

2.1 mi. NW, (2056 hrs, 10°C) one *Epidalea calamita* (CMFS 18384-18386; CM 52579-52581)

A.O.R..

1.0 mi. S, 2114 hrs, 8.3°C, *Epidalea calamita* (CMFS 18384-18386; CM 52579-52581) A.O.R..

1.7 mi. S, 2118 hrs, 8.9°C, *Hyla meridionalis* (CMFS 18383; CM 52578) collected.

Slight drizzle started at 2110 hrs.

**1970, 28 January, Tempul (N36.63853 W5.67598), CA-521 (A-2201)**

0.3 mi. SE a *Discoglossus g. jeanneae* (CMFS 18388 [6]; UCM 44935-44939, 45446) collected.

**1970, 28 January, Tempul (N36.63853 W5.67598), CA-503 (A-2201)**

2.1 mi. W, 2145 hrs, 10°C, *Discoglossus g. jeanneae* (CMFS 18388 [6]; UCM 44935-44939,

UCM 45446).

3.2 mi. W, 2155 hrs, 10°C, *Discoglossus g. jeanneae* (CMFS 18388 [6]; UCM 44935-44939,

UCM 45446)

2.3 mi. W, 2147 hrs, 10°C, *Epidalea calamita* (CMFS 18384-18386; CM 52579-52581) A.O.R..

3.2 mi. W, chorus (10±) *Hyla* from N.

4.3 mi. W, 2210 hrs, chorus of *Hyla* from S.

Rain stopped at 2140 hrs.

**1970, 28 January, San José del Valle (N36.61248 W5.80463), CA-503 (A-2201)**

2.5 mi. E, Small chorus 4-5 *Hyla* from S.

1.9 mi. E, Small chorus *3 Hyla* heard at(3 from S

1.7 mi. E, Small chorus *Hyla* from S.

1.3 mi. E, Small chorus *Hyla* from S.

0.8 mi. E, Small chorus5-6 *Hyla* from S.

2.4 mi E, 2218 hrs, 11.1°C, *Hyla meridionalis* A.O.R..

2.4 mi E, 2218 hrs, 11.1°C, *Hyla meridionalis* D.O.R..

1.3 mi. E, 2227 hrs, 11.1°C, *Discoglossus g. jeanneae* (CMFS 18388 [6] ; UCM 44935-44939,

UCM 45446).

0.4 mi. E, 2232 hrs, 11.1°C, *Discoglossus g. jeanneae* (CMFS 18388 [6] ; UCM 44935-44939,

UCM 45446).

0.4 mi. E, 2234 hrs, 11.1°C, *Discoglossus g. jeanneae* (CMFS 18388 [6] ; UCM 44935-44939,

UCM 45446)

1.9 mi. E, 2222 hrs, 10.6°C, *Pelodytes ibericus* (CMFS 18387; CM 52582).

0.3 mi. W, *Hyla* chorus from south.

2.4 mi. W, 1 *Hyla* calling from south.

2.0 mi. W, 2250 hrs, 10.6°C, *Triturus pygmaeus* (CMFS 18382; CM 52577) A.O.R. in area of

*Quercus suber* during a very heavy rain.

Raining at 2246 hrs.

**1970, 28 January, Paterna de Rivera (N36.52255 W5.86782), C-343 (A-389)**

7.6 mi. N, strong chorus of *Hyla* to E.

6.3 mi. N, 2 *Hyla* calling from E.

**1970, 28 January, Paterna de Rivera (N36.52255 W5.86782), C-343 (A-389) -2-**

6.2 mi. N, 5 *Hyla* calling E.

4.8 mi. N, 1-2 *Hyla* calling from E.

0.3 mi. N, chorus of *Hyla* from E.

2.3 mi. S, 2355 hrs, 10°C, *Hyla* calling from E & W, stronger in E.

5.3 mi. N, 2309 hrs, 10.6°C, *Pelodytes ibericus* (CMFS 18392-18394; CM 52557, 52588 &

52589).

2.3 mi. S, *Pelodytes ibericus* (CMFS 18392-18394; CM 52557, 52588 & 52589) A.O.R..

0.3 mi .N, 2343 hrs, 10°C, 2 *Discoglossus g. jeanneae* (CMFS 18390-18391; CM 52585-

52586).

3.8 mi. S, 2400 hrs, 10.6°C, *Pelobates cultripes* (CMFS 18389; CM 52584) A.O.R.

2309 hrs the rain has subsided.

**1970, 31 January, Sotogrande-Algeciras-Tarifa-Vejer de la Frontera-Chiclana de la Frontera,** 1725 hrs-2209 hrs; 12.8°C- 9.4°C.

**1970, 31 January, Sotogrande(N36.27668 W5.28288), N-340**

0.4 mi. SW, 1725 hrs, 12.8°C, *Hemorrhois* *hippocrepis* (CMFS 18395; CM 52593) A.O.R.

**1970, 31 January, Algeciras (N36.12751 W5.44806), N-340**

1.2 mi. N on N-340 a *Epidalea calamita* A.O.R. (not collected).

**1970, 31 January, Tarifa (N36.02652 W5.60407),N-340**

1.6 mi. NW, 2031 hrs, 11.1°C, *Pelobates cultripes* D.O.R.

6.4 mi. NW, 10.6°C, large chorus *Hyla meridionalis* to S.

8.0 mi. NW. 2050 hrs, 2 *Hyla meridionalis* D.O.R.

8.0 mi. NW. 2050 hrs, small chorus *Hyla meridionalis* in S.

10.4 mi. NW, *Hyla meridionalis* was heard calling in S.

10.9 mi. NW, *Hyla meridionalis* was heard calling in S.

13.7 mi. NW, *Hyla meridionalis* was heard calling in S.

15 mi. NW, very large chorus *Hyla meridionalis* to S.

16 mi. NW, *Hyla meridionalis* was heard calling to N & S.

**1970, 31 January, Vejer de la Frontera (N36.26089 W5.96476), N-340**

15.3 mi. SE, a *Pleurodeles waltl* found D.O.R.

13.0 mi. SE, 2110 hrs, 10.6°C, *Hyla* *meridionalis* heard calling.

13.0 mi. SE, 2110 hrs, 10.6°C, *Hyla* *meridionalis* (CMFS 18397-18399; CM 52595-52599).

12.9 mi. SE, *Hyla* *meridionalis* heard calling from S.

10.7 mi. SE, *Hyla* *meridionalis* heard calling.

8.9 mi. SE, *Hyla* *meridionalis* heard calling (large aggregation).

8.3 mi. SE, *Hyla* *meridionalis* heard calling from S.

7.2 mi. SE, *Hyla* *meridionalis* heard calling.

7.1 mi. SE, *Hyla* *meridionalis* heard calling.

5.3 mi. SE, *Hyla* *meridionalis* (CMFS 18397-18399; CM 52595-52599) A.O.R..

11.0 mi. SE, 2115 hrs, 10°C, *Pelophylax perezi* (CMFS 18396; CM 52594) A.O.R..

7.2 mi. SE a *Rattus sp.* seen D.O.R..

**1970, 01 February, Jerez de la Frontera-La Barca de la Florida-Tempul-Galis-Ubrique-Benaocaz-Villaluenga-Algodonales**

1420 hrs-2030 hrs, 10°C -12.2°C, clear-partly cloudy w/ cumulus.

**1970, 01 February, La Barca de la Florida, (N36.64927 W5.93386)**

1.7 mi. W, *Natrix maura* observed D.O.R..

**1970, 01 February, La Barca de la Florida, 4.9 km E. on CA-503 (N36.63536 W5.88744, 76 m).** 1434 hrs (18.9°C) -1515 (15.6°C). At 1445 hrs a rabbit was observed.

1557 hrs, 11.94°C, *Psammodromus algirus* seen active at base of *Quercus suber* in SE corner of property.

ES 148 (Lichen, not identified further), ES 149 (Liliaceae, *Asphodelus albus* Mill), ES 150 (not determinable), ES 151 (Leguminosae, *Ulex parviflorus* Pourret), and ES 152 (Myrtaceae, *Eucalyptus globulus* Labill) collected and dried. 2 *Ulex* spp. (ES 151) collected for species identification and it should be noted that *Ulex parviflorus* now bear yellow flowers. One small caterpillar, ES 147 ( Lepidoptera ; CM Accession 24076).

**1970, 01 February, Tempul (N36.63853 W5.67598), CA-503**

6.0 mi. W, 1615 hrs, a white-wagtail (Motacillidae, *Motacilla alba*) seen active and appears to be fairly common in the area. 1.5 mi. E on CA-503, 3-4 Black-winged Stilt (Recurvirostridae, *Himantopus himantopus*) seen wading in marshes around 1622 hrs, sunny skies and 15.6°C.

**1970, 01 February, Benaocaz (N36.70016 W5.42317), C-3331**

12.5 mi. NE, 2015 hrs, 6.7°C, *Epidalea calamita* (CMFS 18400; CM 52598) A.O.R..

12.7 mi. NE a rabbit crossed the highway.

**1970, 05 February, Base Naval de Rota, General, (~N 36.627812 W6.331415)**

ES 153-ES 158 (Diptera, Tipulidae, CM accession 24076) collected by William R. Maxwell.

**1970, 06 February**

**Vejer de la Frontera-Zahara de los Atunes-Barbate de Franco-Vejer**

2007 hrs-2329 hrs, 12.2°C at start; there has been rain in the area in the past 2 days.

**1970, 06 February, Zahara de los Atunes, CV-2222 (=A-2231 [NW]) & A-2227 (NE).**

8.3 mi. NE, CV-2222 (A-2227), 2011 hrs, 12.2°C, *Hyla meridionalis* (CMFS 18403 [2]; CM

52603-52604) A.O.R.. 8.2 mi. N a rabbit observed.

0.8 mi. NE, CV-2222 (A-2227), 2019 hrs, 13.3°C, *Hyla meridionalis* collected (CMFS

18403[2]; CM 52603-52604)A.O.R..

A rabbit was seen 1.3 mi. NE.

7.4 mi. NW (A-2231) *Hyla* *meridionalis* chorus noted to NE.

5.6 mi. NW (A-2231) *meridionalis* chorus noted to NE.

5.0 mi. NW (A-2231) *Hyla* *meridionalis* chorus noted to NE.

4.4 mi. NW (A-2231) *Hyla* *meridionalis* chorus noted to NE.

**1970, 06 February, Zahara de los Atunes, CV-2222 -2-**

2.4 mi. NW (A-2231) *Hyla* *meridionalis* chorus noted to NE.

2.1 mi. NW (A-2231) *Hyla* *meridionalis* chorus noted to NE.

7.4mi. NW (A-2231), *Discoglossus g. jeanneae* (CMFS 18401 [3]; CM 52599-CM 52601)

7.2mi. NW (A-2231), *Discoglossus g. jeanneae* (CMFS 18401 [3]; CM 52599-CM 52601)

7.0 mi. NW (A-2231), *Discoglossus g. jeanneae* (CMFS 18401 [3]; CM 52599-CM 52601])

4.0 mi. NW, 2047 hrs, 13.3°C, ES 159 (Coleoptera, Carabidae, CM accession 24076) A.O.R..

2.4 mi. NW (A-2231), 2058 hrs, 15.6°C, *Pelobates cultripes* (CMFS 18404; CM 52605)

collected.

0.9 mi. NW (A-2231), 2107 hrs, 13.3°C, *Hyla* *meridionalis* on CV-2222 (CMFS 18403[3]; CM

52599-CM 52601).

0.4 mi. NW (A-2231), 2110 hrs, 13.9°C, *Hyla* *meridionalis* on CV-2222 (CMFS 18403[3]; CM

52599-CM 52601).

0.2 mi. NE (A-2227), *Hyla* *meridionalis* calling from W.

0.8 mi. NE (A-2227), *Hyla* *meridionalis* calling from E.

1.2 mi. NE (A-2227), 10-15 *Hyla* *meridionalis* calling from W.

1.3 mi. NE (A-2227), *Hyla* *meridionalis* calling.

2.6 mi. NE (A-2227), *Hyla* *meridionalis* calling from W.

2.9 mi. NE (A-2227), *Hyla* *meridionalis* calling from W

4.0 mi. NE (A-2227), *Hyla* *meridionalis* calling from W.

4.6 mi. NE (A-2227), 25-30 *Hyla* *meridionalis* calling from W.

2.0 mi. NE (A-2227), 2122 hrs, 13.3°C, *Pelodytes ibericus* (CMFS 18402)

**1970, 06 February, Vejer de la Frontera (N36.26089 W5.96476), N-340**

17.1 mi. SE, *Hyla* chorus noted from south.

16.8 mi. SE, 2155 hrs, 13.3°C, *Pelobates cultripes* (CMFS 18405; CM 52606) A.O.R..

15.0 mi. SE, 2200 hrs, 13.3°C, *Hyla meridionalis* (CMFS 18406; CM 52607) A.O.R..

14.2 mi. SE, *Hyla* large chorus in S.

8.0 mi. SE, 2215 hrs, 14.4°C, juvenile *Pelophylax perezi* (CMFS 18407; CM 52608) A.O.R.

**1970, 06 February, Barbate de Franco , (N36.19495 W5.91768), C-343**

4.8 mi. NW – 3.6 mi NW, *Hyla* large chorus from N.

3.6 mi NW, 2225 hrs, 11.7°C, ♂ *Hyla* collected A.O.R..

**1970, 06 February, Chiclana de la Frontera (N36.42156 W6.14469), N-IV**

0.6 mi. N, *Hyla meridionalis* seen A.O.R. (not collected).

**1970, 06 February,** Specimens unaccounted for were ♂♂ sent to Delahoussaye at Arizona State University for sperm morphology research.

**Provincia de Málaga**

**1970, 07 February**

1400 hrs-1500 hrs, 15.6°C, one *Podarcis* (*vaucheri*?) was observed on the rocks by the entrance to **La Cueva de la Pileta** and was active in sunlight. The cave is located to the south and west of Ronda and is accessible by a small, well-graded, gravel/dirt road.

**1970, 08 February, Puerto Real (via unmarked road [ = A-408] to intersect with C-440)-Medina Sidonia**

1930 hrs-2114 hrs, 13.3°C -12.8°C

**1970, 08 February, Puerto Real, N-IV at ~N36.53761 W6.16818 to C-440 via A-408**

1.5 mi. N, my first record of *Hyla* on the western most extreme of salt marshes.

1.5 mi -1.1 mi. N. *Hyla meridionalis* chorus.

2.6 mi. SE, *Hyla meridionalis* chorus.

2.6 mi. SE, 1940 hrs, 13.3°C, 2 (♂ + ♀) *Hyla meridionalis* (CMFS 18411; CM 52612-52613)

collected (♂ was sent to Delahoussaye @ Arizona State).

2.7 mi. E, 1950 hrs, 13.3°C, a very heavy westerly wind , ♀ *Hyla meridionalis* (CMFS 18412;

CM 52612-52613).

7.7 mi. E, 2017 hrs, 11.1°C (water) 12.8°C (air), 2 *Pelodytes ibericus* (CMFS 18409-18410; CM

52610-52611) collected in a water hole. *Pelodytes* were calling; voice is a short-termed, high-pitched squeak. (CREEEEK-CREEEK-CREEK like). A third ♂ observed but not collected.

7.7 mi. E, 2017 hrs, 11.1°C (water) 12.8°C (air), *Pelophylax perezi* juvenile (CMFS 18408; CM

52609) collected in a water hole.

**1970, 09 February, Rota-Chipiona-Sanlúcar de Barrameda**

1915 hrs-2100 hrs; Rain today with no appreciable accumulation.

Road to Chipiona dry. *Pelodytes* and *Hyla* heard along route.

**1970, 09 February, Chipiona (N36.70769 W6.41560)**

2.6 mi. SE, 1955 hrs, 15°C, *Epidalea calamita* (CMFS 18413-18414; CM 52614-52615)

collected.

2.5 mi. SE, 1957 hrs, 13.3°C, *Epidalea calamita* (CMFS 18413-18414; CM 52614-52615)

collected.

**1970, 09 February, Chipiona (N36.73894 W6.41988), C-441**

4.4 mi. NE, *Pelodytes* *ibericus* heard calling from the west.

**1970, 09 February, Sanlúcar de Barrameda (N36.77025 W6.34666), C-441**

2.7 mi. NE, *Hyla meridionalis* ♀ (CMFS 18415; CM 52617[5]) A.O.R..

3.9 mi. NE, 2000 hrs-2100 hrs, 11.1°C , about 20 *Hyla* (♂♂) (CMFS 18417[4]; CM

52617[5]) were collected from a roadside ditch in an area of needle grass. The base of the “pond” is muck soil and most frogs were collected while in the water although some were actually high above water level on needles of needle grass. Their calls were recorded (data on tape is in error-should be NE Sanlúcar) and most ♂♂ were sent to Delahoussaye @ Arizona State. Collected specimens represent part of that night’s collection; these specimens died in holding container on the 10th of February .

3.9 mi. NE, 2000 hrs-2100 hrs, 11.1°C , *Pelophylax perezi* (CMFS 18416; CM 52616) also taken in this area while it was floating with its snout above water level.

**1970, 18 February**

**Rota-Sanlúcar de Barrameda-Trebujena-Rota**

1920 hrs-2217 hrs, 12.2°C-10°C, clear and sunny all day, slight breeze during survey.

**1970, 18 February, Sanlúcar de Barrameda**(**N36.77025 W6.34666), C-441**

11.4 mi. N, 2044 hrs, 12.2°C, *Hyla meridionalis* (CMFS 18418; CM 52618) collected.

11.4 mi. N, 2044 hrs, 12.2°C, *Hyla meridionalis* chorus active.

**1970, 18 February, Trebujena,** unmarked (CA-9027), road thru Las Marismas to Río

Guadalquivir .

4.2 mi. W (N36.88881 W6.24693), 2100 hrs, 10°C, *Pelophylax perezi* (CMFS 18419; CM

52619) A.O.R..

**1970, 19 February, Puerto de Santa María, 1.8 mi. ESE (= Valdelagrana, N36.57945 W6.22406),** 1800 hrs-1925 hrs, 16.7°C -13.9°C, slight easterly breeze, clear and sunny.

1841 hrs, *Timon lepidus* (CMFS 18421; CM 52621) collected under damp cardboard in damp

soil.

1850 hrs, *Hyla meridionalis* found on *Cistus crispus* [Cistaceae] ( CMFS 18420; CM 52620).

1911 hrs, *Blanus cinereus* collected under a large flat rock in moist soil. CMFS 18422; CM 52622. Mosquitos were noted as very active, frog larvae not yet common but some large specimens from last year’s (?) season were. ES 160 (spider, CM unidentified), ES 161 (Coleoptera, Tenebrionidae, CM accession 24076), ES 162 (Coleoptera, Carabidae, CM accession 24076), ES 163 (spider, CM unidentified), ES 164 (Orthoptera, Gryllidae, CM accession 24076), and ES 165 (caterpillar, Lepidoptera, CM accession 24076) collected.

**1970, 21 February**

**Trafalgar-Vejer de la Frontera-Tarifa-Algeciras-Los Barrios-Casas del Castaño-Alcalá de los Gazules**

1300 hrs-2220 hrs (1830 hrs-2220 hrs)

**1970, 21 February, Trafalgar (~N36.18564 W6.03306)**

1200 hrs-1300 hrs±, 15.6°C - 20°C, considerable flooding in area of Cabo Trafalgar and anuran larvae in formed ponds. Larvae are this year’s (from size) and they seem to remain on bottoms of ponds in foliage present there.

ES 166 (Diptera, Asilidae, CM accession 24076), ES 167 (flea, CM unidentified), ES 168 (Hymenoptera, Superfamily Apoidea, CM accession 24076), ES 169 (Coleoptera,

Chrysomelidae, CM accession 24076), ES 170 (Coleoptera, Curculionidae, CM accession 24076), and ES 171 (Diptera, CM accession 24076) found under mostly clear skies with few cirri-stratus clouds. A slight breeze most of the time. The sandy soil is probably of the limestone variety and dunes are present and tightly packed. Clumps of “coral” also found. Plant cover contains some coniferous shrubs with *Myrtus communis* L. (Myrtaceae) seemingly dominant. Grass is scant and ES 173 (Leguminosae, *Lygos [=Retama] monosperma* [L.]) also present but not too common. At 1321 hrs it was 20°C.

**1970, 21 February, Vejer de la Frontera (N36.26089 W5.96476), N-340**

10 mi. SE, *Timon lepidus* seen A.O.R.

10.3 mi. E, *Hyla meridionalis* heard calling.

10.3 mi. SE, *Mauremys leprosa* seen in a pond on N side of road

18.8 mi. SE, *Hemorrhois hippocrepis* found D.O.R..

23.3 mi. SE, 1510 hrs, *Natrix maura* D.O.R..

**1970, 21 February, Tarifa (N36.02652 W5.60407), N-340**

1.3 mi. NW, 1530 hrs, *Mauremys leprosa* found D.O.R..

0.1 mi. NW, *Natrix maura* found D.O.R. but not considered salvageable.

**1970, 21 February, Casas del Castaño (N36.30792 W5.59662), C-440**

4.3 mi. NW, 1 *Hyla meridionalis* calling from south.

5.1 mi. NW, 1 *Hyla meridionalis* calling from south.

5.2 mi. NW, *Pelophylax perezi* A.O.R.

5.7 mi. NW, 15°C, *Pelophylax perezi* (CMFS 18423-18428; CM 52623[7]) A.O.R.. .

6.2 mi. NW, 1942 hrs, 16.7°C, juvenile *Pelophylax perezi* (CMFS 18423-18428; CM

52623[7])

6.2 mi. NW, 1942 hrs, 16.7°C, adult *Bufo spinosus* (CMFS 18434; CM 52628) A.O.R..

6.4 mi. NW, 5-6 *Hyla* heard from south

7.2 mi. NW, 1952 hrs, 14.4°C, a heavy chorus of *Hyla.*

7.2 mi. NW, 1952 hrs, 14.4°C, *Pelophylax perezi* (CMFS 18429; CM 52623[7]) adult and sub-

adult *Pelophylax perezi* (CMFS 18423-18428; CM 52623[7])

7.6 mi. NW, large chorus of *Hyla*

7.6 mi. NW, one *Pelodytes ibericus* calling .

8.3 mi. NW, large chorus of *Hyla*

8.4 mi. NW, 2001 hrs, 12.8°C, 2 juvenile *Pelophylax perezi* (CMFS 18423-18428; CM

52623[7]) found.

**1970, 21 February, Alcalá de Los Gazules (N36.43994 W5.71962), C-440**

2.3 mi. SE, *Hyla* calling.

4.7-4.9 mi. SE , *Hyla* heard calling.

4.9 mi. SE, 2014 hrs, 12.2°C, *Hyla meridionalis* (CMFS 18430-18431; CM 52624-52625).

5.7 mi SE, 2007 hrs, 15.6°C, *Hyla meridionalis* (CMFS 18430-18431; CM 52624-52625).

5.7 mi. SE, 2007 hrs, 15.6°C, *Pelophylax perezi* (CMFS 18423-18428; CM 52623[7]) .

**1970, 21 February, Alcalá de Los Gazules, (N36.44084 W5.72006), C-440** **NW**

4.4 mi. NW, 2050 hrs, 8.9°C, *Discoglossus g. jeanneae* (CMFS 18432-18433; CM 52626-

52627) under a full moon.

14.0 mi. NW, 2121 hrs, 9.4°C, *Discoglossus g. jeanneae* (striped) CMFS 18432-18433; CM

52626-52627) under a full moon.

ES 172 (a slug, CM unidentified) collected 10.8 mi. NW, 2110 hrs, 13.3°C. while it was

crossing the highway (C-440).

**1970, 21 February, Puerto Real, N-IV ~N36.53761 W6.16818 to C-440 via A-408**

10.5 mi. E, *Hyla meridionalis* (CMFS 18435; CM 52629) A.O.R.

2.6 mi. E, *Hyla meridionalis* seen but not collected.

**1970, 22 February, La Barca de la Florida-Algar**

**1970, 22 February, La Barca de la Florida, 4.9 km E. on CA-503 (N36.63536 W5.88744)**

1410 hrs, 23.9°C, *Timon lepidus* observed crossing the highway under clear skies, no wind.

1413 hrs, 23.85°C, a juvenile *Timon lepidus* active along with numerous grasshoppers.

1514 hrs, 22.8°C (ambient), *Pelodytes ibericus* tadpole series (CMFS 18436; CM 52630;

[Gosner stages: ≤25(N=6), 26(N=11),27(N=3),28(N=7),29(N=1),30(N=1),31(N=21), 32(N=13), 33(N=40), 34(N=64), 35(N=37),36(N=16), & 37(N=2)]).

**1970, 22 February, Algar (N36.65531 W5.65956), CA-6104**

5.3 mi. NW a large adult *Malpolon monspessulanus* observed D.O.R. but not collected.

**1970, 24 February, Puerto de Santa Maria-Jerez de la Frontera-Rota**

2000 hrs-2100 hrs, 12.8°C -10°C

Some *Hyla* *meridionalis* heard but nothing else of herpetological interest noted.

**1970, 24 February, Base Naval de Rota, General, (~N 36.627812 W6.331415)**

ES 174 (Coleoptera, Scarabaeidae, CM accession 24076) collected

**1970, 25 February, Puerto de Santa María, (= Valdelagrana, N36.57945 W6.22406)**

1800 hrs-1942 hrs, 15.6°C, clear and sunny, 14.4°C at 1931 hrs, and a fog seemed to be settling in (R.H. approximate at about 85-90%).

*Hyla* *meridionalis* calling from extremely wet western side, few from E.

Mosquitos active and at pest proportions in some areas. ES 175 (Coleoptera, Carabidae, CM accession 24076), ES 176 (Orthoptera, Acrididae, CM accession 24076), and ES 177 (Coleoptera, Carabidae, CM accession 24076) collected.

1942 hrs, *Hyla meridionalis* (CMFS 18437; CM 52631) collected A.O.R..

**1970, 26 February, Base Naval de Rota, Vicinity of Harbor (N36.624244 W6.334138)**

0047 hrs, one *Epidalea calamita* (CMFS 18438; CM 52632) collected in vicinity of harbor.

**1970, 02 March, Tarifa-Algeciras-Los Barrios-Casas del Castaño-Alcalá de los Gazules**

2000 hrs-2317 hrs

**1970, 02 March, Algeciras (N36.12751 W5.44806), N-340,** 3 frogs (1 definite *Discoglossus g. jeanneae* ) seen on south side while driving thru town.

**1970, 02 March, Los Barrios (N36.18209 W5.48920), C-440 (NOT Rt. 17!)**

2.3 mi. E, *Hyla meridionalis* seen A.O.R.

1.7 mi. E, *Hyla meridionalis* seen A.O.R.

1.2 mi. E, 2011 hrs, 12.2°C, *Discoglossus g. jeanneae* (CMFS 18444 [6]; CM 52638[6]).

1.2 mi. E, 2011 hrs, 12.2°C, 2 *Hyla meridionalis* (CMFS 18439 [15]; CM 52633[9], UCM

44940-44945).

**1970, 02 March, Los Barrios (N36.18209 W5.48920), C-440 (1969-1972)**

3.2 mi. NW, 2 *Discoglossus g. jeanneae* (CMFS 18444 [6] ]; CM 52638[6]).

2.9 mi. NW, 2030 hrs, 10.6°C, *Discoglossus g. jeanneae* (CMFS 18444 [6] ]; CM 52638[6]).

3.4 mi. NW, ♂ *Pelophylax perezi* (CMFS 18440-18441; CM 52634-52635).

Between 3.4 and 4.2 mi. NW, 2041 hrs, 10°C, *Chalcides striatus* (CMFS 18459; CM 52653) adult found sitting in middle of wet road.

4.2 mi. NW, 2050 hrs, 10.6°C, *Hyla meridionalis* collected (CMFS 18439 [15]; CM

52633[9], UCM 44940-44945).

3.5 mi. NW, juvenile *Pelophylax perezi* (CMFS 18440-441; CM 52634-52635).

6.8 mi. NW, *Bufo spinosus* observed D.O.R. but not collected.

**1970, 02 March, Casas del Castaño (N36.30792 W5.59662), C-440**

7.1 mi. SE, 2110 hrs, 10.6°C, 2 *Hyla meridionalis* collected (CMFS 18439 [15]; CM

52633[9], UCM 44940-44945).

3.6 mi. SE, 2140 hrs, 10°C, *Hyla meridionalis* collected (CMFS 18439 [15]; CM 52633[9],

UCM 44940-44945).

0.2 mi. SE, 2157 hrs, 11.1°C, *Hyla meridionalis* collected (CMFS 18439 [15]; CM

52633[9], UCM 44940-44945).

6.9 mi. SE, 10-15 *Hyla meridionalis* heard in chorus to North.

3.9 mi. SE, *Hyla meridionalis* heard in chorus to North.

1.1 mi. SE, *Hyla meridionalis* D.O.R. specimen noted.

*Hyla meridionalis c*horuses less frequent now than in January or February (at least in

this area).

7.0 mi. SE, 2111 hrs, *Bufo spinosus* (CMFS 18451; CM 52645)

5.2 mi. SE, 12.8°C, *Pelodytes ibericus* (CMFS 18445-18448; CM 52639-52642).

3.5 mi. SE, ±2141 hrs, 10°C, juvenile *Discoglossus g. jeanneae* (CMFS 18444 [6]; CM

52638[6]).

**1970, 02 March, Casas del Castaño (N36.30792 W5.59662), C-440 -2-**

0.5 mi. NW, 2202 hrs, 9.4°C, *Pelodytes ibericus* (CMFS 18445-18448; CM 52639-52642).

2.6 mi. NW, *Pelodytes ibericus* (CMFS 18445-18448; CM 52639-52642). A.O.R..

0.5 mi. NW, 2202 hrs, 9.4°C, *Salamandra longirostris* collected (CMFS 18452-18455; CM

52646-52649).

2.8 mi. NW, 2219 hrs, 11.1°C, *Salamandra longirostris* collected (CMFS 18452-18455; CM

52646-52649).

4.1 mi. NW, 2226 hrs, 12.8°C, *Salamandra longirostris* collected (CMFS 18452-18455; CM

52646-52649).

2.1 mi. NW, 2212 hrs, 12.2°C, *Discoglossus g. jeanneae* with a fungal (?) infection of some

type collected A.O.R. (CMFS 18444 [6]; CM 52638[6]).

2.3 mi. NW, *Hyla meridionalis* (CMFS 18439 [15]; CM 52633[9], UCM 44940-44945).

3.9 mi. NW, 2224 hrs, 12.8°C, *Hyla meridionalis* (CMFS 18439 [15]; CM 52633[9], UCM

44940-44945).

6.9 mi. NW, 2237 hrs, 12.8°C, *Hyla meridionalis* (CMFS 18439 [15]; CM 52633[9], UCM

44940-44945).

7.2 mi. NW, *Hyla meridionalis* (CMFS 18439 [15]; CM 52633[9], UCM 44940-44945).

3.9 mi. NW, 2 *Hyla meridionalis* calling.

4.7 mi. NW, 1 *Hyla meridionalis* calling.

Several snails noted on road at 3.9 mi. NW

7.4 mi. NW, *Pelophylax perezi* (CMFS 18442-18443; CM 52636-52637) A.O.R..

**1970, 02 March, Alcalá de Los Gazules (N36.43994 W5.71962), C-440**

7.3 mi. SE, *Pleurodeles waltl* (CMFS 18456-18458; CM 52650-52652) A.O.R.. (sub-adult).

6.7 mi. SE, *Pleurodeles waltl* (CMFS 18456-18458; CM 52650-52652) A.O.R.. (adult).

6.5 mi. SE, *Pleurodeles waltl* (CMFS 18456-18458; CM 52650-52652) A.O.R..

7.2 mi. SE, *Pelobates cultripes* (CMFS 18449-18450) collected.

7.1 mi. SE, 2247 hrs, 13.9°C,  *Hyla meridionalis* (CMFS 18439 [15]; CM 52633[9], UCM

44940-44945).

7.0 mi. SE, *Hyla meridionalis* large choruses from N & S

7.0-6.7 mi. SE, *Hyla meridionalis* choruses from entire area.

6.3 mi. SE, *Hyla meridionalis* chorus.

5.8 mi. SE, *Hyla meridionalis* chorus from N.

4.7 mi. SE, 25-30 specimens *Hyla meridionalis* in chorus from N.

at 2125 the rain started

1.0 mi. SE, 2311 hrs, 13.3°C, large adult *Salamandra longirostris* (CMFS 18452-18455; CM

52646-52649) A.O.R..

0.8 mi. SE, clear sky, *Pelodytes ibericus* (CMFS 18445-18448) collected A.O.R..

Rain previously mentioned terminated about 2200 hrs.

**1970, 03 March, Vejer de la Frontera-Trafalgar-Los Caños-Chiclana de la Frontera**

2025 hrs-2211 hrs

**1970, 03 March, Vejer de la Frontera (N36.26089 W5.96476), A-2230**

1.0 mi. SW, *Hyla* *meridionalis* chorus from E.

1.7 mi. SW, *Hyla* *meridionalis* chorus from E .

7.5 mi. SW, *Hyla* *meridionalis* small chorus from E & W.

7.6 mi. SW, *Hyla* *meridionalis* chorus.

1.1 mi. SW, 2036 hrs, 13.3°C, *Pelodytes ibericus* (CMFS 18463-18464; CM 52657-52658).

1.2 mi. SW, 2038 hrs, 12.2°C, *Pelodytes ibericus* (CMFS 18463-18464; CM 52657-52658).

7.7 mi. SW, *Epidalea calamita* observed D.O.R..

**1970, 03 March, Los Caños de Meca (N36.18583 W6.01205), A-2230**

1.1 mi. W, 2-3 *Hyla* *meridionalis* calling from E.

*Hyla* *meridionalis* seems to prefer shallow, drainage type, areas as habitat.

0.9 mi. W, 2116 hrs, 14.4°C, 2 *Hyla meridionalis* (CMFS 18460-18462; CM 52654-52656)

A.O.R..

0.5 mi. W, *Epidalea calamita* (CMFS 18466; CM 52660) collected

probably from the first large aggregation of *Epidalea* noted for this year

0.4 mi. W, D.O.R. *Epidalea calamita*

0.7 mi. W, *Hyla* *meridionalis* chorus from S.

which would place them in close proximity to salt water.

1.1 mi. W, 2127 hrs, 12.2°C, *Hyla* *meridionalis* (CMFS 18460-18462; CM 52654-52656)

collected in an area of sandy soil w/ many others heard.

1.5 mi. NW, 11.7°C, *Triturus pygmaeus* (CMFS 18465; CM 52659) collected A.O.R..

**1970, 03 March, Chiclana de la Frontera (N36.42156 W6.14469), N-340**

1.7 mi. E, 2230 hrs, *Pelobates cultripes* (CMFS 18467; CM 52661) collected.

**1970, 06 March, Trafalgar (~N36.18564 W6.03306),** Sunset (11.7°C) -2042 hrs, no wind, damp.

*Hyla* *meridionalis* calling from south, anuran larvae in most ponds in area (could be *Pelodytes*).

2014 hrs, 10.6°C (air) and 16.7°C(water), *Triturus pygmaeus* (CMFS 18468; CM 53071)

collected in 7-10 cm of water. Seemed to be “foraging” on bottom.

A larval *Triturus pygmaeus* (ES 178; CM 53157) was collected in 16.7°C water and several

(8-10) more were observed.

2042 hrs, *Epidalea calamita* (CMFS 18469; CM 53052) collected A.O.R..

**1970, 09 March, Rota (N36.62899 W6.35430)-Chipiona (N36.70769 W6.41560) Road**

2200 hrs-2320 hrs, RH 50%, BP 29.860→; 12.8°C at 2305 hrs. 2320 hrs END SURVEY.

Sky cloudy but not keeping heat on earth’s surface—no calls from frogs on Rota-Chipiona Road, but *Hyla meridionalis* heard on Naval Base. Nothing, save mice, and one *Hyla meridionalis* (2300 hrs) active on road tonight. The air is particularly damp and temperature pockets as high as 16.1°C were noted.

**1970, 11 March, Jerez de la Frontera-Arcos de la Frontera-El Bosque**

1918 hrs-2230 hrs, 13.3°C, windy & overcast.

Vicinity of El Bosque, ES 179 (Coleoptera, Scarabaeidae, CM accession 24160)

**1970, 11 March, El Bosque** (**N36.75819 W5.50904), C-344**

4.2 mi. W, *Pelophylax perezi* D.O.R. (subadult, 3.8 cm SUL), not saved.

nothing of further herpetological interest noted. The quiescence of the past two days is worthy of some note.

**1970, 12 March, Algeciras-Los Barrios-Casas del Castaño-Alcalá de los Gazules-Puerto Real-Puerto de Santa Maria-Rota (Naval Base)**

1926 hrs-2330 hrs

**1970, 12 March, Los Barrios (N36.18209 W5.48920), C-440 (1969-1972)**

1.3 mi. NW, 1951 hrs, 12.2°C, *Hyla meridionalis* (CMFS 18474-18476; CM 53077-52079).

4.5 mi. NW, 2012 hrs, 11.7°C, *Hyla meridionalis* (CMFS 18474-18476; CM 53077-52079).

4.6 mi. NW, *Hyla meridionalis* A.O.R.

7.9 mi. NW, *Hyla meridionalis* heard from N.

3.2 mi. NW, *Hyla meridionalis* D.O.R.

14.4 mi. NW, *Hyla meridionalis* D.O.R.

4.7 mi. NW, 2015 hrs, 11.1°C, ***Discoglossus jeanneae***(CMFS 18484-18485; **CM 53087-53088,**

**PARATYPES**) .

4.8 mi. NW, ***Discoglossus jeanneae***(juv) (CMFS 18484-18485; **CM 53087-53088,**

**PARATYPES**).

5.1 mi. NW, *Discoglossus g. jeanneae* D.O.R., not collected.

4.8 mi. NW, *Bufo spinosus* (CMFS 18480-18483; CM 53083-53086) collected.

5.3 mi. NW, *Bufo spinosus* (CMFS 18480-18483; CM 53083-53086) collected.

6.7 mi. NW, 2030 hrs, 11.1°C, *Bufo spinosus* (CMFS 18480-18483; CM 53083-53086) collected.

7.9 mi. NW, 2040 hrs, 10.6°C, *Bufo spinosus* (CMFS 18480-18483; CM 53083-53086) collected.

6.8 mi. NW, *Bufo spinosus* (juv) noted D.O.R.

7.4 mi. NW, *Bufo spinosus* (juv) noted D.O.R.; sweet oD.O.R. observed from parotid glands of

D.O.R. specimen

4.8 mi. NW, *Pelophylax perezi* D.O.R. noted.

**1970, 12 March, Casas del Castaño (N36.30792 W5.59662), C-440**

12.8 mi. SE, *Hyla meridionalis*  D.O.R..

5.8 mi. SE, 2135 hrs, 6.7°C, raining, *Hyla meridionalis* D.O.R.

10.3 mi. SE, 2-5 *Hyla meridionalis* inchorus.

10.3 mi. SE, area of heavy land snail concentration.

1.7 mi. SE, 2150 hrs, 6.7°C, *Salamandra longirostris* (CMFS 18470-18471; CM 53073-

53074) taken. The specimen was lethargic from the cold and it was

raining heavily in the area.

**1970, 12 March, Alcalá de los Gazules (N36.44084 W5.72006), C-440**

1.0 mi. WNW, 6.7°C, *Pelodytes ibericus* seen A.O.R...

1.2 mi. WNW, 2203 hrs, 6.1°C, *Salamandra longirostris* (CMFS 18470-18471; CM 53073-

53074) A.O.R..

The rain is still cold and this specimen appeared active on the road, or at least not as lethargic as the earlier specimen.

**1970, 12 March, Puerto Real, N-IV ~N36.53761 W6.16818 to C-440 via A-408**

3.8 mi. E, 2306 hrs, *Pelodytes ibericus* (CMFS 18477-18479; CM 53080-53082).

2.2 mi. E, *Pelodytes ibericus* (CMFS 18477-18479; CM 53080-53082).

1.1 mi. E, *Pelodytes ibericus* (CMFS 18477-18479; CM 53080-53082).

1.1 mi. E, a hedgehog was also noted D.O.R..

**1970, 12 March, Puerto de Santa Maria (N36.57834 W6.21324), CA-32**

4.1 mi. SE, *Pleurodeles waltl* (CMFS 18472-18473; CM 53075-53076) collected and others

seen.

4.0 mi. SE, 2320 hrs, *Pleurodeles waltl* (CMFS 18472-18473; CM 53075-53076) collected

while moving to breeding pond.

(NOTE: Pink ridge on belly may be an indication of breeding condition).

**1970, 12 March, Rota, Naval Base, CA-603**

*Pelobates cultripes* (CMFS 18486-18487; CM 53089-53090) collected on perimeter road just east of the base.

**1970, 15 March, La Barca de La Florida-Paterna de Rivera-Puerto de Santa Maria**

**1970, 15 March, La Barca de La Florida (N36.64927 W5.93386) (CA-502/CA-503 split)**

1.7 mi. W on CA-502, 1130-1230 hrs, 2.8°C, partial overcast, a larval series of (CMFS 18491; *Pelobates cultripes*, CM 53094 [see Busack & Zug, *Herpetologica*, 1976], 6 *Pleurodeles waltl* (CM 94657[missing in 2013], *Triturus* *pygmaeus* (CM 94660, albino – see Busack, 2014, *Boletín de la Asociacíon Herpetológica Española* 25[1]) taken in vernal pond with annual grasses constituting most of the bottom. Some frogs (probably *Pelophylax*), *Hirundo rustica*, and Black-backed Stilt also noted active in area. 0.4 mi. W. a Black-backed Stilt was noted soaring on the property to the north.

**1970, 15 March, La Barca de la Florida, 4.9 km E. on CA-503 (N36.63536 W5.88744, 76 m)**

1252 hrs, 11.1°C, overcast and sunny, slight breeze, quiet.

1306 hrs, 11.13°C, subadult *Timon lepidus* seen active

1311 hrs, 11.44°C, *Psammodromus algirus* observed active low to ground.

Red growths on *Halimium commutatum Pau.* (ES-183*,* Cistaceae), *Lavandula stoechas* L. (ES-181, Labiatae; 2 w/ purple flowers and reproductive parts), *Cistus salviifolius* (L) (ES 182, Cistaceae, complete plant with white and yellow flowers), and 2 other specimens of *Genista triacanthos* (Leguminoseae) taken for reference purposes.

1403 hrs, 12.36°C, *Psammodromus algirus* (CMFS 18488-18490; CM 53091-53093) shot.

1409 hrs, 12.46°C, *Psammodromus algirus* seen

1415 hrs, 12.57°C, *Psammodromus algirus* adult seen.

1422 hrs, 12.70°C, *Psammodromus algirus* shot.

1437 hrs, 13.00°C, *Psammodromus algirus* specimen (CMFS 18488-18490; CM 53091-53093).

1446 hrs, 13.20 C, *Psammodromus algirus* adultseen active in proximity of *Chamaerops humilis* L. (Palmae) which also seems to provide cover for *Timon lepidus*.

1450 hrs, 13.30°C, *Psammodromus algirus* shot but not saved.

1500 hrs-1506 hrs, 13.69°C, *Timon lepidus* was stalked. It appeared in sun from 3-5 m between

stops in “open” shade.

1520 hrs, 13.9°C, *Psammodromus algirus* seen active.

End of survey at 1530 hrs, 13.9°C, (overcast and occasionally sunny.

ES 180 (Cistaceae, Halimium halimiifolium [L]) collected along with 2 specimens of ES 184 (=ES 14; Ericaceae, *Erica scoparia* L. ) for identification.

Between Paterna de Rivera and the La Barca-Jerez road (CA-502) *Carduelis chloris* (Fringillidae) seen active in fields at 1640 hrs (about 2 mi. N of Paterna on C-343).

**1970, 15 March, Puerto de Santa María (= Valdelagrana, N36.57945 W6.22406)**

1912 hrs, air 12.8°C, water 13.3°C, overcast and sunny.

Larval *Pelobates cultripes* (CMFS 18492, CM 53095) taken.

2 *Natrix maura* seen active in pond bottoms; several larval insects collected. ES 185 (Heteroptera, Notonectidae, CM accession 24160), ES 186 (water skimmer, CM unidentified), ES 187 (water bugs, CM unidentified), and ES 188 (Heteroptera, Corixidae, CM accession 24160).

**1970, 18 March, Puerto de Santa María, (2.2 mi S Benchmark = Valdelagrana, N36.57447 W6.21956, 3 M)**

1830 hrs-2200 hrs, 17.8°C, clear, sunny, slight SW breeze

1840 hrs, *Discoglossus g. jeanneae* (CMFS 18494-18497; CM 53097-53100) active.

1850 hrs, *Discoglossus g. jeanneae* at edge of vernal pond.

1950 hrs, *Natrix maura* (CMFS 18493; CM 53096) under cardboard in field.

2000 hrs, ES 189 (Orthoptera, Gryllidae, CM accession 24160), ES 190 (Spider, CM unidentified), ES 191 (Orthoptera, Acrididae [slant-faced locust], CM accession 24160), ES 192 (Odonata, Zygoptera, CM accession 24160), and ES 193 (Soptera (CM accession 24160) collected at 13.3°C at dusk.

2010 hrs , *Hyla meridionalis* (CMFS 18500-18503; CM 53103-53106) A.O.R.

2010 hrs , scattered choruses of *Hyla* *meridionalis* noted.

2015 hrs, *Discoglossus g. jeanneae* (CMFS 18494-18497; CM 53097-53100) collected along

with *Pelobates cultripes* (CMFS 18498-18499; CM 53101-53102)

2020 hrs, *Hyla meridionalis* (CMFS 18500-18503; CM 53103-53106) collected.

2039 hrs, *Pelobates cultripes* (CMFS 18498-18499; CM 53101-53102) and *Discoglossus g.*

*jeanneae* (CMFS 18494-18497; CM 53097-53100) collected A.O.R..

2045 hrs, *Hyla meridionalis* (CMFS 18500-18503; CM 53103-53106) A.O.R..

2048 hrs, *Hyla meridionalis* (CMFS 18500-18503; CM 53103-53106) A.O.R..

**1970, 20 March, Jerez de la Frontera-La Barca de La Florida,** 1600 hrs-1815 hrs

**1970, 20 March, Jerez de la Frontera (N36.68617 W6.09886), CA-502 (=A-2003)**

0.3 mi. E, 1618 hrs, *Malpolon monspessulanus* D.O.R..

10.7 mi. E **(A-2003, N36.64570 W5.90072, 61 M)**, 1634 hrs, 21.7°C, *Natrix maura* (CMFS 18504; CM 53107) collected fresh D.O.R.

**1970, 20 March, La Barca de la Florida, 4.9 km E. on CA-503 (N36.63536 W5.88744, 76 m)**

1645 hrs, 22.2°C, -1815 hrs, 19.4°C, clear w/ SW wind.

1716 hrs, 21.24°C, subadult *Timon lepidus* active around *Phillyrea angustifolia* L. (Oleaceae).

1730 hrs, 20.80°C, *Psammodromus algirus* (CMFS 18505; CM 53108*)* collected on *Chamaerops humilis* L. (Palmae).

1740 hrs, 20.49°C, *Timon lepidus* sub-adult seen on Ulex sp.

1752 hrs, 20.12°C, *Timon lepidus* adult seen active.

1815 hrs, 19.4°C , survey ended.

**1970, 31 March,** **Base Naval de Rota, Puerto gate (N36**.625823 W6.313244), CA-603

~3 mi. E, *Pelobates cultripes* (CMFS 18506; CM 53109) W. R. Maxwell collection.

**1970, 09 April, Rota (N36.62899 W6.35430)-Chipiona (N36.70769 W6.41560) Road**

2005 hrs-2230 hrs, 14.4°C, RH 64%, BP 29.880”

**1970, 09 April, Rota (N36.62899 W6.35430)**

0.7 mi. NW, 2115 hrs, *Pelodytes ibericus* (CMFS 18507 [5]; CM 53110 [5]) A.O.R..

0.9 mi. NW, 11.1°C, *Pelodytes ibericus* (CMFS 18507 [5]; CM 53110 [5]) A.O.R..

1.2 mi. NW, 2 juvenile *Pelodytes ibericus* (CMFS 18507 [5]; CM 53110 [5]) A.O.R..

4.0 mi. NW, 2200 hrs, 11.1°C, *Pelodytes ibericus* (CMFS 18507 [5]; CM 53110 [5]) A.O.R..

2.5 mi. NW, *Pleurodeles waltl* (CMFS 18508-18511; CM 53111-53114) collected.

2.6 mi. NW, *Pleurodeles waltl* (CMFS 18508-18511; CM 53111-53114) collected.

2.3 mi. NW, *Pleurodeles waltl* (CMFS 18508-18511; CM 53111-53114) collected.

2.5 mi. NW, *Hyla meridionalis* seen A.O.R. during small shower (CMFS 18513; CM 53116)

2.6 mi. NW, 2212 hrs, 10°C, *Pelobates cultripes* (CMFS 18512; CM 53115) A.O.R..

**1970, 10 April, Puerto de Santa Maria-Puerto Real-Chiclana de la Frontera-Vejer de la Frontera-Tarifa-Algeciras-Los Barrios-Facinas-Vejer-Rota**

2115 hrs - 0239 hrs, 14.4°C, clear skies w/ rain last night

**1970, 10 April, Vejer de la Frontera (N36.26089 W5.96476), N-340**

11.8 mi. SE on, 2225 hrs, *Hyla meridionalis* (CMFS 18514; CM 53117).

**1970, 10 April, Algeciras (N36.12751 W5.44806), N-340**

5.7 mi. N, *Hyla meridionalis* (CMFS 18515; CM 53118) collected.

5.7 mi. N, *Hyla meridionalis* chorus of 10-15 specimens noted.

**1970, 10 April, Facinas (N36.14768 W5.70281), CA-7200**

13.2 mi. NE, 2355 hrs, 12.2°C, *Discoglossus g. jeanneae* (CMFS 18516-18517; CM 53119-

53120).

**1970, 11 April, Facinas (N36.14768 W5.70281), CA-7200**

12.2 mi. NE, 11.7°C, juvenile *Discoglossus g. jeanneae* (CMFS 18516-18517; CM 53119-

53120) A.O.R..

5.5 mi. NE, 0054 hrs, 10°C, *Bufo spinosus*  collected (CMFS 18519; CM 53122) A.O.R..

2.0 mi. NE, 0109 hrs, 11.1°C, large adult *Pelobates cultripes* (CMFS 18518; CM 53121)

**1970, 11 April, Jerez de la Frontera-Jedula-Arcos de la Frontera-Bornos-Villamartín-Algodonales-Olvera-Setenil-Villaluenga-Benaocaz-El Bosque**

1235 hrs-2050 hrs, sky clear-partly cloudy

**1970, 11 April, Bornos (N36.81854 W5.74740), N-342**

2.8 mi. NE, 1357 hrs, 8 *Mauremys leprosa; Mauremys* in Río Guadalete now with a much

receded water line (3 m. in width, at least).

2.8 mi. NE, 1357 hrs, *Timon lepidus* (SDB 1/81).

**1970, 11 April, Algodonales (N36.87596 W5.40170), N-342**

19.4°C, slight wind, overcast skies (cumulus clouds).

3.0 mi. SW, 1445 hrs-1517 hrs, *Podarcis vaucheri* (CMFS 18520-18522; CM 53123-53125) shot

in vicinity of Río Guadalete on S side of bridge; sunning themselves.

0.7 mi. SW, 1526 hrs, 2 *Timon lepidus* seen on stone wall.

1.7 mi. NE, 1551 hrs, ES 194 (Orthoptera, Acrididae, CM accession 24160) on stone wall.

**1970, 11 April, Olvera (N36.92582 W5.25490), CA-9109**

7.8 mi. SW off N-342, 1626 hrs, *Timon lepidus* (SDB 1/81) seen on S side of ravine.

**1970, 11 April, Olvera off N-342 (N36.93170 W5.24237), (CA-9106)**

2.0 mi. SE off N-342 (~N36.91771 W5.23357), 1715 hrs, 16.7°C, *Podarcis vaucheri* (CMFS

18523; CM 53126) from bridge.

**1970, 11 April, El Bosque** (**N36.75819 W5.50904), C-344**

7.0 mi. SW, 2050 hrs, one *Malpolon monspessulanus* seen D.O.R..

**1970, 11 April, Setenil de las Bodegas (N36.86235 W5.18572), CA-9120**

6.8 mi. NW, *Podarcis vaucheri* (CMFS 18523; CM 53126)

**1970, 12 April, Jerez de la Frontera-Medina Sidonia-Benalup de Sidonia-Cabo Trafalgar**

1200 hrs-2015 hrs

**1970, 12 April, Benalup de Sidonia (N36.35646 W5.79585), CA-211**

1330 hrs-1400 hrs, 17.8°C, some intermittent rain in area.

5.9 mi. W, area of a small fast creek with stony bed and very wet soil, banks lined with “Beech” trees, specimens ES 195 & 196 (CM, unidentified), ES 197, Coleoptera, Carabidae, CM

accession 24160), and ES 198 (Heteroptera, Reduviidae, CM accession 24160) and ES 207 (fish [sucker?] CM, unidentified) collected.

5.9 mi. W **(N36.39014 W5.89077, 150 M),** 1330 hrs-1400 hrs, 17.8°C, *Natrix maura* (CMFS 18526; **CM 53129**) in a pile of rocks along stream bed.

5.9 mi. W, 1330 hrs-1400 hrs, 17.8°C, *Discoglossus* *g. jeanneae* calling and believed seen in

stream “oxbow” lakes.

6.6 mi. W, 2 large adult *Timon lepidus* (CMFS 18533-18534; CM 53136-53137) under large

rocks in mossy soil.

**1970, 12 April, Benalup de Sidonia (N36.35646 W5.79585), CA-211 -2-**

6.6 mi. W, 21.1°C, 2 *Pleurodeles waltl* (CMFS 18531-18532; CM 53134-53135) in rocky areas

along with ES 199 (Coleoptera, Carabidae, CM accession 24160), ES 201 (Buthidae,

Buthus occitanus), ES 203 (Coleoptera, Carabidae, CM accession 24160), and ES 204

(Coleoptera, Cantharidae, CM accession 24160). ES 200, 202, 205 & 206 (CM,

unidentified).

6.6 mi. W, *Pelophylax perezi* active

6.6 mi. W, *Discoglossus g. jeanneae* calling.

**1970, 12 April, Benalup de Sidonia (N36.35646 W5.79585), CA-212 (E)**

1600-1740 hrs.

1.3 mi. E (at Río Barbate), N36.33669 W5.79159, 12.5 m) 1600 hrs-1630 hrs, 2 *Tarentola mauritanica* (CMFS 18528-18529; CM 53131-53132) from S side of bridge,

1.3 mi. E (at Río Barbate, N36.33669 W5.79159, 12.5 m ), 1600 hrs-1630 hrs, *Psammodromus algirus* (CMFS 18527; CM 53130) in cactus area on N side of Bridge.

Cloudy at this point with sporadic sunshine.

2.8 mi. E, 1700 hrs, 18.9°C, subadult *Timon lepidus* (CMFS 18530; CM 53133)

2.8 mi. E, 1700 hrs, 18.9°C, *Natrix maura* seen

overcast and relatively sunless skies

4.4 mi. E, 1730 hrs, one *Timon lepidus* seen.

4.5 mi. E, 1740 hrs, 18.3°C, large adult *Timon lepidus* (CMFS 18535; CM 53138) in a pile of

rocks.

**1970, 12 April, Cabo Trafalgar (~N36.18564 W6.03306)**

1945 hrs-2015 hrs, Air 14.4°C; water 19.4°C.

4 *Pleurodeles waltl* larvae (CMFS 18524, CM 94658) Air 14.4°C; water 19.4°C.

20 *Triturus pygmaeus* larvae (CMFS 18524, CM 94659 ) Air 14.4°C; water 19.4°C.

24 *Pelobates cultripes* (CM 18524; CM 53127) tadpoles collected Air 14.4°C; water 19.4°C.

1945 hrs-2015 hrs, *Hyla meridionalis* calling from ponds in the area.

**1970, 12 April, Base Naval de Rota, General (~N 36.627812 W6.331415)**

2200 hrs, 15.6°C, *Epidalea calamita* (CMFS 18525; CM 53128)

**1970, 13 April, Jerez de la Frontera-Arcos de la Frontera-Junta de Los Ríos-La Barca de la Florida,** 1650 hrs-2200 hrs, 21.1°C-15.6°C

**1970, 13 April, Junta de Los Ríos (N36.69738 W5.85919), C-343**

0.4 mi. N, 1745 hrs, *Psammodromus algirus* active on a stone wall.

0.4 mi. N, 1745 hrs, 1 *Podarcis vaucheri* active on a stone wall.

**1970, 13 April, La Barca de la Florida, 4.9 km E. on CA-503 (N36.63536 W5.88744, 76 m)**

1800 hrs-1932 hrs, 24.4°C, no wind at start; 1900 hrs, 22.8°C .

1806 hrs, 24.18°C, an adult *Psammodromus algirus* (CMFS 18536-18539; CM 53139-53142) shot.

1818 hrs, 23.80°C, another adult *Psammodromus algirus* seen.

1823 hrs, 23.60°C, *Psammodromus algirus* shot while sunning.

1838 hrs, 23.2°C, *Psammodromus algirus* (CMFS 18536-18539; CM 53139-53142) sub-adult shot.

1840 hrs, 23.11°C, *Psammodromus algirus* juvenile shot.

1842 hrs, 23.05°C, sub-adult *Psammodromus algirus* seen but not collected.

1900 hrs, 22.8°C .

1932 hrs, 21.7°C, 135 *Epidalea calamita* tadpoles (*fide* SDB 2014; Gosner stages 27 [N=7], 28 [N=120], and 29 [N=7]; CMFS 18543; CM 53146) sampled from vernal pool. Pool was non-existent last month, or at least between the last collection at this location and now. Water (25.6°C) .

**1970, 13 April, La Barca de la Florida, CA-502**

3.4 mi. W, 2028 hrs, 16.1°C, *Hyla meridionalis* (CMFS 18540; CM 53143) taken A.O.R..

2.4 mi. W, 2034 hrs, 16.7°C, one *Epidalea calamita* (CMFS 18541; CM 53144) taken A.O.R.

2.4 mi. W, 2034 hrs, 16.7°C, a few *Hyla* calling.

**1970, 13 April, Jerez de la Frontera-Arcos de la Frontera-Junta de los Ríos-La Barca de la Florida,** 1650 hrs-2200 hrs, 21.1°C - 15.6°C

**1970, 13 April, Jerez de la Frontera**, **(from N36.68000 W6.15093, 3 miles NW, then**

**N36.69037 W6.20347 to West) , unmarked road, (A-2078)**

9.3 mi. W (N36.65402 W6.29919), 2140 hrs, 15.6°C, *Pelophylax perezi* (CMFS 18542; CM

53145) A.O.R..

**1970, 16 April, Puerto de Santa María-Naval Base,** 1830 hrs-2200hrs, 21.7°C -17.8°C

**1970, 16 April, Puerto de Santa María,** 2.2 mi S Benchmark **(= Valdelagrana, N36.57447 W6.21956, 3 M**). Clear sky, high today was ~26°C.

1 *Pelodytes ibericus* (CMFS 18544, CM 60229) tadpole, and series of *Pelobates cultripes* (CMFS 18544 [171]; CM 53147, (tadpoles Gosner stages 32-41, USNM 198531, USNM 322090-322098 ) collected: 17.8°C (air) and 21.7°C (water).

3 *Natrix maura* (CMFS 18546-18548; **CM 53149-53151**) and a *Pleurodeles waltl* (CMFS 18545; CM 53148) taken within confines of pond on area. ES 208 (Odonata, nymphs, CM accession 24160), ES 209 (Horseshoe crab – fresh water).

Most of the area is drying up now or at least beginning to.

**1970, 16 April, Base Naval de Rota, Golf course (N36.629330 W6.353636)**

2200 hrs-2220 hrs, 16.1°C (air), 20°C (water).

One *Pelophylax perezi* (CMFS 18549; CM 53152) taken in pond and a series of 49 *Pleurodeles waltl* (CMFS 18553; CM 53156 [49]) larvae taken along with 3 adults (CMFS 18550-18552; CM 53153-53155). Pond water level decreasing and no albinos were noted.

**1970, 18 April, Puerto de Santa María (= Valdelagrana, N36.57945 W6.22406)** ES 210 (CM, unidentified)

**1970, 21 April, Base Naval de Rota, General (~N 36.627812 W6.331415)**

*Chalcides striatus* (CMFS 18554; CM 53028). M.J. Bridges, coll.

**1970, 23 April, Rota (N36.62899 W6.35430)**

2.1 – 3.0 mi. NW, *Pelobates cultripes* (CMFS 18555 [22]; CM 53029 [22]).

2.1 – 3.0 mi. NW, Pleurodeles waltl (CMFS 18556; CM 53030)

**1970, 23 April, Base Naval de Rota, General (~N 36.627812 W6.331415)**

*Hyla meridionalis* (CMFS 18557; CM 53031).

**1970, 23 April, Puerto de Santa María (= Valdelagrana, N36.57945 W6.22406)**

*Pelobates cultripes* (CMFS 18558 [18], CM 53032 [18]).

*Pelophylax perezi* (CMFS 18559; CM 53033).

*Epidalea calamita* (CMFS 18560; CM 53034)

W.R. Maxwell, donation

**1970, 23 April, Puerto de Santa María, CA-603**

~3 mi. SE Naval Base (CMFS 18506, CM 53109) W. R. Maxwell: coll.

**1970, 24 April, Rota (N36.62899 W6.35430)-Chipiona (N36.70769 W6.41560) Road**

2200-2300 hrs. W.R. Maxwell, collector.

*Pelobates cultripes* (CMFS 18561[16]; CM 53042[16]).

*Pleurodeles waltl* (CMFS 18562; CM 53042).

**1970, 24 April, Base Naval de Rota, General (~N 36.627812 W6.331415)**

*Epidalea calamita* (CMFS 18563, CM 53044) W.R. Maxwell, collector.

**1970, 25 April, Puerto de Santa María (= Valdelagrana, N36.57945 W6.22406)**

*Pelophylax perezi* (CMFS 18564; CM 53035).

*Pelobates cultripes* (CMFS 18565-18568 [87]; CM 53036-53039 [87]).

W.R. Maxwell, collector.

**1970, 25 April, Jerez de la Frontera-Arcos de la Frontera-El Bosque-Benamahoma-Grazalema-Villaluenga-Benaocaz-El Bosque**

Clear sky, 0900 hrs-2100 hrs, 16.7°C.

**1970, 25 April, Arcos de la Frontera (N36.76116 W5.80842), C-344**

6.0 mi. E, 1037 hrs, 2 *Psammodromus algirus* D.O.R., freshly killed.

6.1 mi. E, 1041 hrs, *Timon lepidus* A.O.R..

8.7 mi. E, *Macroprotodon cucullatus* (?) A.O.R..

10.7 mi. E, 1110 hrs, 27.8°C, *Podarcis vaucheri* active on wall of a bridge.

12.0 mi. E, 1116 hrs, 23.3°C, sub-adult *Timon lepidus* basking (=sunning) on road.

**1970, 25 April, El Bosque** (**N36.75819 W5.50904), C-344**

8.9 mi. W,1124 hrs, 23.3°C , ES 214 (Coleoptera, Meloidae, CM accession 24226) collected.

7.2 mi. W,1130 hrs, 23.3°C, *Chalcides striatus* (?) on road.

7.0 mi. W,1130 hrs, 23.3°C, adult *Timon lepidus* on road.

**1970, 25 April, El Bosque** (**N36.75819 W5.50904), C-344 -2-**

5.0 mi. W, 1138 hrs, 22.8°C *Timon lepidus* crossed road.

4.3 mi. W, *Timon lepidus* D.O.R..

**1970, 25 April, Benamahoma (N36.75894 W5.46421), C-344**

2.6 mi. W, 1200 hrs, 23.9°C, one *Timon lepidus* active on road (small sub-adult).

0.2 mi. E, 1240 hrs, 27.8°C, one large adult *Timon lepidus.*

0.8 mi. E, 1250 hrs, 27.8°C, *Timon lepidus* sunning.

2.0 mi. E, 1330 hrs-1500 hrs, 28.3°C, *Psammodromus algirus* seen active from 1400 hrs-1430

hrs and one *Timon lepidus* came out to sun in an elevated plateau on a gentle slope with a ground cover of *Halimium halimiifolium* (L) (Cistaceae) and several *Ulex*, *Quercus suber* in small groups, and many granite outcroppings.

2.0 mi. E, 1330 hrs-1500 hrs, 28.3°C, One *Podarcis vaucheri* shot off bridge (adult) [CMFS

18569-18576; CM 53040[8]).

**1970, 25 April, Grazalema (N36.75884 W5.37326), C-344**

4.0 mi. W, 1545 hrs-1550 hrs, 22.8°C , 2 *Podarcis vaucheri* (CMFS 18569-18576; CM

53040[8]) shot while in direct sun.

Terrain rocky montane and *Ulex* and thorns dominant plants.

3.45 mi. W, 1615 hrs-1620 hrs, 20°C, *Podarcis vaucheri* (CMFS 18569-18576; CM 53040[8])

shot from large stone retaining wall.

2.9 mi. W, 1647 hrs, 22.8°C, 2 *Podarcis vaucheri* on a wall.

2.6 mi. W, 1700 hrs, 22.2°C, *Podarcis vaucheri* shot from stump(CMFS 18569-18576; CM

53040[8]) ; others noted in area.

2.3 mi. W(N36.75746 W5.40131, 1069 m), 1730 hrs-1753 hrs, 17.2°C , one *Timon lepidus* seen.

2.3 mi. W(N36.75746 W5.40131, 1069 m), 1730 hrs-1753 hrs, 17.2°C, 3 *Podarcis vaucheri* (CMFS 18569-18576; CM 53040[8]) shot.

2.3 mi. W (N36.75746 W5.40131, 1069 m), 1730 hrs-1753 hrs, 17.2°C , 1 *Psammodromus algirus* (CMFS 18577) shot.

2.3 mi. W(N36.75746 W5.40131, 1069 m), 1730 hrs-1753 hrs, 17.2°C , *Podarcis vaucheri* (CMFS 18569-18576; CM 53040[8]) shot from stone wall and stones in field. Apparently catching last rays of sun for the day.

ES 215 (Diptera, Tipulidae, CM accession 24226) collected.

**1970, 26 April, La Barca de la Florida, 4.9 km E. on CA-503 (N36.63536 W5.88744, 76 m)**

0700 hrs-1524 hrs, 11.1°C-23.9°C.

0658 hrs, a Red-legged Partridge (*Alectoris rufa)*.

0750 hrs, 16.47°C, start survey.

0757 hrs, 16.60°C*, Psammodromus algirus* seen on ground under *Quercus coccifera*.

0800 hrs, 16.63°C*, Psammodromus algirus* seen on ground.

0806 hrs, 16.70°C*, Psammodromus algirus* collected (CMFS 18578-18585; CM 53045[8]) on brush pile

**1970, 26 April, La Barca de la Florida, 4.9 km E. -2-**

0809 hrs, 16.73°C*,* Subadult *Psammodromus algirus* seen on lower branches of shrubbery

0820 hrs, 16.88°C*, Psammodromus algirus* active on lower branches of *Ulex* and *Quercus coccifera*

0823 hrs, 16.95°C*, Psammodromus algirus* shot(CMFS 18578-18585; CM 53045[8]) in *Phillyrea angustifolia* L.

0831 hrs, 17.22°C*, Psammodromus algirus* seen under *Phillyrea* and *Ulex*

0834 hrs,17.36°C*,* juvenile *Psammodromus algirus* seen under *Phillyrea angustifolia* L.

0837 hrs, 17.53°C*, Acanthodactylus erythurus* seen and rabbit noted.

0841 hrs, 17.8°C; 0900 hrs, 20°C

0907 hrs, 20.07°C*, Acanthodactylus erythurus* under *Quercus coccifera* (CMFS 18586-18595; CM 53046[10])

0918 hrs, 20.19°C*, Timon lepidus* seen in *Halimium halimiifolium.*

0924 hrs, ES 216 (Coleoptera, Carabidae, CM accession 24226)

0930 hrs, 20.32°C*, Psammodromus algirus* taken (CMFS 18578-18585; CM 53045[8]) under *Quercus coccifera.*

0936 hrs, 20.38°C*, Psammodromus algirus* seen under *Phillyrea angustifolia* L.

0941 hrs, 20.43°C*, Acanthodactylus erythurus* shot (CMFS 18586-18595; CM 53046[10]) in open area while foraging.

0946 hrs, 20.49°C*, Acanthodactylus erythurus* shot (CMFS 18586-18595; CM 53046[10]) under

*Halimium halimiifolium*. Adult in ecdysis.

0950 hrs, 20.53°C*,*  *Psammodromus algirus* in *Chamaerops humilis* L. (Palmae)

0952 hrs, 20.55°C*, Psammodromus algirus* shot (CMFS 18578-18585; CM 53045[8]) under *Halimium halimiifolium* while foraging on ground.

1001 hrs, 20.64C*, Psammodromus algirus* seen in area of *Gentista*.

1006 hrs, 20.70°C*, Psammodromus algirus* shot (CMFS 18578-18585; CM 53045[8]) from leaves of

*Myrtus communis* L.

1015 hrs, 20.79°C*,* Subadult *Timon lepidus* noted.

1018 hrs, 20.82°C*,*  *Psammodromus algirus* shot (CMFS 18578-18585; CM 53045[8]) while sunning on ground under *Myrtus* *communis*.

1026 hrs, 20.91°C*,*, adult *Psammodromus algirus* active on tops of *Myrtus* *communis* and *Ulex*.

1040 hrs, 21.06°C*,* Sub-adult *Psammodromus algirus* shot (CMFS 18578-18585; CM 53045[8]).

1044 hrs, 21.1°C.

1115 hrs, ES 217 (Coleoptera, Tenebrionidae, CM accession 24226)

collected.

1130 hrs, 22.2°C .

1135 hrs, 22.25°C*, Acanthodactylus erythurus* shot in open sun (CMFS 18586-18595; CM 53046[10]).

1137 hrs, 22.27°C*, Acanthodactylus erythurus* adult shot (CMFS 18586-18595; CM 53046[10]) while sunning and a juvenile *Acanthodactylus erythurus* shot while sunning on *Ulex*.

1147 hrs, 22.38°C*, Bufo spinosus* (CMFS 18597; CM 53048) collected.

1157 hrs, 22.48°C*,* adult *Acanthodactylus erythurus* shot (CMFS 18586-18595; CM 53046[10]) under *Quercus coccifera*.

1211 hrs, 22.63°C*, Psammodromus algirus* shot (CMFS 18578-18585; CM 53045[8]) under *Chamaerops* and lost.

1223 hrs, 22.76°C*, Timon lepidus* and *Psammodromus algirus* seen active in and around *Myrtus*.

1229 hrs, 22.82°C*, Epidalea calamita* (CMFS 18596) under *Phillyrea angustifolia* L.

1315 hrs, 23.3°C.

1340 hrs, 23.42°C*, Acanthodactylus erythurus* shot (CMFS 18586-18595; CM 53046[10]) near road.

1356 hrs,23.49°C*, Acanthodactylus erythurus* shot (CMFS 18586-18595; CM 53046[10]).

1409 hrs, 23.55°C*, Psammodromus algirus* seen in *Chamaerops*.

1419 hrs, 23.60°C*, Psammodromus algirus* seen active in *Halimium halimiifolium*.

1444 hrs, 23.71°C*, Psammodromus algirus* active in *Halimium halimiifolium*.

1445 hrs, 23.72°C*, Psammodromus algirus* juvenile active under *Cistus crispus* (Cistaceae).

1451 hrs, 23.75°C*, Psammodromus algirus* seen under *Quercus coccifera*.

1524 hrs, 23.9°C . End.

**1970, 26 April, La Barca de la Florida, 4.9 km E.**

ES 211 (Coleoptera, Dytiscidae or Hydrophilidae), ES 212 (Heteroptera, Notonectidae), ES 213[6] (Heteroptera, Corixidae and Notonectidae), ES 218 (Coleoptera, Meloidae) all CM accession 24226.

**1970, 26 April, La Barca de Florida (N36.64927 W5.93386), CA-502**

1.9 mi. W, 1530 hrs-1610 hrs, 21.1°C (air), 25.6°C (water).

*Pelobates cultripes* (CMFS 18598 [171]; CM 53049 [169], USNM 198532 [2]) **[see Busack & Zug, *Herpetologica*, 1976]** larvae collected with *Pleurodeles waltl* (CMFS 18599[18]; CM 53050, 53050B-53050R) and *Hyla meridionalis* (CMFS 18600[9]; CM 53051[9]) larvae.

**1970, 30 April, Puerto de Santa María**, (Benchmark, N36.60559 W6.21981, 10 M).

*Natrix maura* (CMFS 18601-18602; CM 53052 [=UCM 44989] -53053) R. Goad & D. Wade donation.

**1970, 03 May, El Bosque-Galis-Jimena de la Frontera**

1100 hrs-1600 hrs, 23.9°C - 28.3°C .

**1970, 03 May, El Bosque** (**N36.75819 W5.50904), C-344**

5.0 mi. W, D.O.R. *Psammodromus algirus* noted.

**Provincia de Málaga**

**1970, 03 May, Galis, C-3331**

2.0 mi. E (=N36.54247 W5.58607), 1230 hrs-1240 hrs, in cool mountain stream, one *Pelophylax*

*perezi* (CMFS 18603; CM 53054) collected.

2.0 mi. E(=N36.54247 W5.58607), 1230 hrs-1240 hrs, *Podarcis vaucheri* (CMFS 18608-18614;

CM 53059[7]) taken off wall of bridge.

1.2 mi. E (=N36.54589 W5.59474), *Tarentola mauritanica*  (CMFS 18604; CM 53055) shot

from side of bridge.

1.2 mi. E (=N36.54589 W5.59474), *Podarcis vaucheri* (CMFS 18608-18614; CM 53059[7]) shot from side of bridge.

**1970, 03 May, Galis, C-3331**

0.9 mi. E (= N36.54895 W5.59519), *Psammodromus algirus* (CMFS 18605-18607; CM 53056-

53058) shot while foraging in rock filled meadow.

0.7 mi. E (= N36.55080 W5.59628) on bridge, *Podarcis vaucheri* (CMFS 18608-18614; CM

53059[7]).

0.7 mi. E (= N36.55080 W5.59628) on bridge, *Psammodromus algirus* (CMFS 18605-18607;

CM 53056-53058).

0.7 mi. E (= N36.55080 W5.59628) on bridge, *Tarentola mauritanica*  observed.

**Provincia de Cádiz**

**1970, 03 May, Jimena de la Frontera (N36.43890 W5.44437, 46 m), C-3331**

5.1 mi. NW (**N36.47590 W5.39308, 85 m**), 1530 hrs, *Timon lepidus* (CMFS 18615; CM 53060).

5.1 mi. NW (**N36.47590 W5.39308, 85 m**), 1530 hrs, *Psammodromus algirus* (CMFS 18605-18607; CM 53056-53058).

4.1 mi. NW (~N36.45849 W5.48704), 1550 hrs, *Podarcis vaucheri* (CMFS 18608-18614; CM

53059[7]) from bridge.

2.5 mi. NW (~N36.44681 W5.47379), 1630 hrs, *Podarcis vaucheri* (CMFS 18608-18614; CM

53059[7])) shot and one observed.

1.8 mi. NW (~N36.44577 W5.46638), 2 *Podarcis vaucheri* (CMFS 18608-18614; CM 53059[7])

shot.

0.9 mi. NW, Kestrel observed (*Falco tinnunculus*).

**1970, 05 May, Puerto de Santa María,** 2.2 mi S Benchmark **(= Valdelagrana,** N36.57447 W6.21956, 3 M**)**

1911 hrs-2020 hrs, 18.3°C-16.1°C, SW wind to 20 mph.

1942 hrs, *Natrix maura* (CMFS 18616; CM 53061) under paper in field.

1954 hrs, *Discoglossus g. jeanneae* (CMFS 18617-18; CM 53062[2]) under board in

muck soil.

1955 hrs, *Pleurodeles waltl* (CMFS 18619; CM 53063) in wet cardboard. 2 spiders (ES 219-

220; CM, unidentified) taken.

All water holes dry now and no standing water available. Muck soil continues supporting moisture above normal level but dryness will soon be apparent.

**1970, 07 May, Rota-Algeciras-Los Barrios-Casas del Castaño**

2100 hrs-2400 hrs, SW wind, 12.8°C, sky cloudy and with cumulonimbus clouds.

Road to Algeciras without amphibians or reptiles

**1970, 07 May, Los Barrios (N36.18209 W5.48920), C-440 (1969-1972)**

3.0 mi. NW, one night-jar (*Caprimulgus europaeus*) seen A.O.R..

4.6 mi. NW, another *Caprimulgus europaeus* seen, red eye-shine noted hovering over road

**1970, 07 May, Casas del Castaño (N36.30792 W5.59662), C-440**

2.2 mi. SE, *Timon lepidus* D.O.R..

7.9 mi. SW, 2220 hrs, 10°C, *Discoglossus g. jeanneae* active but not collected.

**1970, 08 May, Rota (N36.62899 W6.35430)-Chipiona (N36.70769 W6.41560) Road,**

2155 hrs-2300 hrs, 12.8°C, Very windy.

**1970, 08 May, Rota (N36.62899 W6.35430)**

2.3 mi. W, 2155 hrs, 12.8°C, 3 juvenile *Pelobates cultripes* (CMFS 18625 [19]; CM 53069[19])

collected.

2.4 mi. W, 3 more juvenile *Pelobates cultripes* picked up(CMFS 18625 [19]; CM 53069[19]) .

2.5 mi. W, 2 *Pleurodeles waltl* D.O.R. but not saved.

2.6 mi. W, 2 *Pelobates cultripes* collected, a few (3-4) other seen (CMFS 18625 [19]; CM

53069[19]) .

2.5 mi. W, a larger series of *Pelobates cultripes* collected (CMFS 18625 [19]; CM 53069[19]).

2.4 mi. W, 2017 hrs, 12.8°C, one large adult *Pleurodeles waltl* (CMFS 18626, CM 53070).

2.4 mi. W, 2017 hrs, 12.8°C, one *Pelobates cultripes* (CMFS 18625 [19]; CM 53069[19]).

The area 2.6 mi. - 2.1 mi. W of Rota seems to be a heavy area for *Pelobates* collection just after transformation of larvae.

**1970, 13 May, Jerez de la Frontera-Medina Sidonia-Vejer de la Frontera-Chiclana de la Frontera-Puerto Real-Puerto de Santa Maria-Naval Base,** 1914 hrs-2300 hrs.

**1970, 13 May, Jerez de la Frontera (Cartuja de Santa María de la Defenó), to SE**

**(N36.65556 W6.09378), C-440 (1969-1972)**

9.9 mi. SE, 1932 hrs, 17.8°C, one *Carduelis carduelis* (Fringillidae) (ES 242) collected.

*Hirundo rustica* also seen.

**1970, 13 May, Medina Sidonia, (N36.48538 W5.90893), C-440 (A-381)**

4.8 mi. NW, 1950 hrs, 1 m *Rhinechis scalaris* D.O.R..

**1970, 13 May, Medina Sidonia (N36.43649 W5.91498), C-343**

3.7 mi. S, 2024 hrs, *Rhinechis scalaris* D.O.R..

8.3 mi. S, 2042 hrs, 12.8°C, *Bufo spinosus* (CMFS 18629-18633; CM 53160[5]) A.O.R..

**1970, 13 May, Medina Sidonia (N36.43649 W5.91498), C-343 -2-**

9.4 mi. S, 2052 hrs, 12.2°C, juvenile *Rhinechis scalaris* (CMFS 18628; CM 53159) A.O.R..

9.9 mi. S, 2057 hrs, 15°C, *Bufo spinosus* (CMFS 18629-18633; CM 53160[5]) collected on wet,

sandy soil of road.

**1970, 13 May, Vejer de la Frontera (N36.26089 W5.96476), C-343**

6.7 mi. N, 2100 hrs, 11.7°C, *Bufo spinosus* (CMFS 18629-18633; CM 53160[5]) A.O.R..

6.3 mi. N, 2106 hrs, 11.1°C, *Bufo spinosus* (CMFS 18629-18633; CM 53160[5]).

6.2 mi. N, 2109 hrs, 10.6°C, *Bufo spinosus* (CMFS 18629-18633; CM 53160[5]).

**1970, 13 May, Puerto de Santa Maria, CA-603**

1.1 mi. NW, 2238 hrs, 14.4°C, *Hyla meridionalis* (CMFS 18627; CM 53158) A.O.R..

**1970, 14 May, Puerto de Santa Maria-Rota-Chipiona-Rota**

2200 hrs-2400 hrs, (2400 hrs): 17.8°C , RH 70%, winds SW 10-15 mph

**1970, 14 May, Puerto de Santa Maria, N-IV (=CA-32), (N36.57834 W6.21324)**

1.8 mi. ESE, *Pelobates cultripes* (CMFS 18642; CM 53169) collected.

**1970, 14 May,** **Rota (N36.62899 W6.35430)-Chipiona (N36.70769 W6.41560) Road** *Pelobates cultripes* (CMFS 18641 [34]; CM 53168[34])

*Pleurodeles waltl* (CMFS 18637-18640; CM 53164-53167),

*Pelodytes ibericus* (CMFS 18634-18635; CM 53161-53162) collected.

**1970, 14 May,** **Rota (N36.62899 W6.35430)**

4.3 mi. NW, 2350 hrs, *Macroprotodon brevis* (CMFS 18636; CM 53163) fresh D.O.R..

**1970, 16 May, Bonanza, 4.3 mi. N (= La Algaida) (~N36.87491 W6.28856)**

1130 hrs-1530 hrs, Sunny and clear.

Area of *Cistus crispus*, *Halimium halimiifolium* L., *Pinus pinea* L., and substrate of sand

and *Pinus* needles. *Ulex* and *Chamaerops* conspicuously absent.

*Acanthodactylus erythrurus* (CMFS 18643-18671; CM 53245[29]).

*Psammodromus algirus* (CMFS 18672-18676; CM 53246-53250) collected,

*Timon lepidus* seen.

1745 hrs-1820 hrs: *Psammodromus algirus* seen.

1747 hrs, 21.1°C

1820 hrs = 18.3°C .

*Pica pica* (Corvidae) along with *Buteo buteo* (Accipitridae) seen soaring over *Pinus* area. The area is unique in that it is all pine forest and sandy knolls. Sand dunes provide *Halimium halimiifolium* as basic cover; Junipers also present. Area seems to have more *Acanthodactylus erythrurus* than ***Psammodromus algirus*.**

**1970, 16 May, Bonanza**

7.0 mi. N (CA-9027, **~N36.88678 W6.28896, 1 M**), 1920 hrs±, 18.3°C, one *Natrix maura* (CMFS 18678; **CM 53252**).

**1970, 16 May, Base Naval de Rota, Vicinity East (~ 36.62121 W6.29798, 29 M)**

*Natrix maura* D.O.R., 0945-1000 hrs., (CMFS 18677 & 18691; **CM 53251 & CM 53181**). Maxwell coll.

**Provincia de Málaga**

**1970, 17 May, Alozaina (N36.72915 W4.86480)**, 1025 hrs., **D.O.R.**. *Timon lepidus* W. R.

Maxwell.

**Provincia de Cádiz**

**1970, 17 May, Jerez de la Frontera-La Barca de la Florida-San José del Valle-Alcalá de los Gazules-Casas del Castaño-Los Barrios-Algeciras-Vejer de la Frontera-Chiclana de la Frontera-NAVBASE**

0655 hrs-2032 hrs

**1970, 17 May, Base Naval de Rota, General (~N 36.627812 W6.331415)**

*Epidalea calamita* (CMFS 18680; CM 53170)

**1970, 17 May, Jerez de la Frontera (N36.68617 W6.09886), CA-502**

4.8 mi. E, 1515 hrs., **D.O.R.**, *Malpolon monspessulanus* (CMFS 18690; CM 53180).

Maxwell coll.

**1970, 17 May, La Barca de la Florida, 4.9 km E. on CA-503 (N36.63536 W5.88744, 76 m)**

0756 hrs-1100 hrs, 0728 hrs, 11.7°C , area fenced in w/ barbed wire now.

*Malpolon monspessulanus* shed found on area.

0756 hrs, 13.03°C, *Psammodromus algirus* active in *Quercus coccifera*.

0758 hrs, 13.12°C, *Psammodromus algirus* active on *Chamaerops*.

0805 hrs, 13.45°C, *Psammodromus algirus* in *Chamaerops.*

0808 hrs, 13.59°C, *Psammodromus algirus* on *Quercus coccifera*.

0810 hrs-0814 hrs, 13.78°C, *Psammodromus algirus* on *Chamaerops.*

0820 hrs, 14.15°C, *Psammodromus algirus* active

0829 hrs, 14.57°C, *Psammodromus algirus* in *Chamaerops*.

0851 hrs, 15.6°C . (18.3°C in sun.)

0851 hrs, 15.6°C, *Psammodromus algirus* in *Quercus coccifera*.

0909 hrs, 16.35°C, *Psammodromus algirus* under large clump of grass.

0914 hrs, 16.57°C, *Psammodromus algirus* active in *Pistacia lentiscus* L. (Anacardiaceae).

0915 hrs, 16.61°C, *Psammodromus algirus* taken from *Pistacia lentiscus* (destroyed subsequently).

0922 hrs, 16.91°C, *Psammodromus algirus* in *Chamaerops* and noted that *Ulex* no longer bears flowers.

0950 hrs, 18.10°C, *Psammodromus algirus* in *Chamaerops*.

0957 hrs, 18.39 *Acanthodactylus erythrurus* in *Pistacia lentiscus* and under *Halimium halimiifolium*.

1000 hrs, rabbit seen.

1009 hrs, 18.91°C, *Acanthodactylus erythrurus* under *Lavandula*, *Halimium halimiifolium*, and into

*Quercus coccifera*.

1026 hrs, 19.6°C, 3*Timon lepidus* in *Quercus coccifera*.

1029 hrs, 19.76°C, *Timon lepidus* sub-adult seen.

1100 hrs, 21.1°C (ambient), 22.2°C (sun)

*Halimium halimiifolium* dominates this particular area. ES 221 and ES 222 (spider and

bug; CM unidentified.

**1970, 17 May, San José del Valle (N36.60342 W5.79594), CA-5200**

2.3 mi. SSE, CA-5200**,** (~N36.57260 W5.78675), 1215 hrs, *Hemorrhois hippocrepis* D.O.R..

3.5 mi. SSE, CA-5200**,** (~N36.55944 W5.77681), 1225 hrs, adult *Timon lepidus*

4.3 mi. SSE, CA-5200**,** (~N36.54836 W5.77581), sub-adult *Timon lepidus*

5.9 mi. SSE, CA-5200**,** (~N36.52895 W5.76194), *Malpolon monspessulanus* D.O.R..

7.1 mi. SSE, CA-5200**,** (~N36.51535 W5.74998), *Malpolon monspessulanus* 7.1 mi. SSE and 2 mi. E on unmarked dirt road. (2) *Merops apiaster* (Meropidae) seen over pasture land and

several *Turdus viscivorus* (Muscicapidae) seen on fence posts at 1315 hrs. 8.6 mi. SSE, 1325 hrs, *Lanius senator* (Laniidae).

**1970, 17 May, Alcalá de Los Gazules(N36.43994 W5.71962), C-440**

6.6 mi. ESE, *Delichon urbicum* (Hirundinidae) and several *Hirundo rustica* observed. A pair of

nesting *Himantopus himantopus* (Recurvirostridae) were observed on edge of

pasture/woodlot area.

6.6 mi. ESE, One *Mauremys leprosa*  seen swimming in pond in this area. *Mauremys* seems to

be fairly common in area but is restricted to ponds (slow moving or rapid moving) for

habitat.

**1970, 17 May, Casas del Castaño (N36.30792 W5.59662), C-440**

0.5 mi. SE, 1515 hrs, *Pelophylax perezi* (CMFS 18681; CM 53171) captured

5.8 mi. ESE, 2-3 *Mauremys leprosa*

5.8 mi. ESE, *Timon lepidus*

1.5 mi. W, 1530 hrs, *Macroprotodon brevis* (CMFS 18688; CM 53178) taken from under rock

in damp soil with ants.

1.5 mi. W, 1531 hrs, *Timon lepidus* (CMFS 18686-18687; CM 53176-53177) taken from under

rockin montane area.

1535 hrs = 24.4°C .

1.7 mi. W, 1550 hrs-1555 hrs, 23.3°C, 4 *Tarentola mauritanica* (CMFS 18682-18685; CM

53172-53175) shot from culvert, 1 juvenile observed. A centipede was taken from under

rock in dry bed of stream.

2.4 mi. W, 1612 hrs, *Mauremys leprosa* seen in small pond

3.3 mi. W, 1624 hrs, *Timon lepidus*

3.6 mi. W, 1628 hrs, *Timon lepidus*

0.8 mi. W, 1637 hrs, *Timon lepidus* (CMFS 18686-18687; CM 53176-53177) shot.

**1970, 17 May, Algeciras (N36.12751 W5.44806), N-340**

3.2 mi. SW, *Timon lepidus* D.O.R..

**1970, 17 May, Vejer de la Frontera (N36.26089 W5.96476), N-340**

9.9 mi. ESE, *Natrix maura* D.O.R..

**1970, 17 May, Vejer de la Frontera -2-**

7.0 mi. ESE, 1922 hrs, 23.9°C, *Natrix maura* (CMFS 18689; CM 53179 [=UCM 44990]) A.O.R..

4.3 mi. WNW, *Timon lepidus* D.O.R..

**1970, 17 May, Chiclana de la Frontera (N36.42156 W6.14469)**

0.3 mi. N, 2010 hrs, *Malpolon monspessulanus* D.O.R..

**1970, 18 MAY, Puerto de Santa María (= Valdelagrana, N36.57945 W6.22406)** ES 223

(unidentified)

**1970, 20 May, Base Naval de Rota**

2055 hrs. W.R. Maxwell recorded a *Malpolon monspessulanus* D.O.R. between Naval Base

Puerto Gate and intersection to Sanlúcar de Barrameda (~**N36.63972 W6.30787).**

**1970, 20 May,** between Puerto de Santa Maria and Sanlúcar de Barrameda, A-2001 **(probably between Arroyo Papa-Ratones & Arroyo del Salado, ~N36.69137 W6.29383, 25 M).**

*Natrix maura*(CMFS 18702, **CM 53192**). Lorraine T., and William R. Maxwell.

**1970, 20 May, Naval Base-Puerto de Santa Maria**

1825 hrs-2200 hrs, 22.8°C, ES 245-ES 245 (Cornell University, not identified).

**1970, 20 MAY, Puerto de Santa María, 2.2 mi S Benchmark (= Valdelagrana, N36.57447 W6.21956, 3 M)**

1847 hrs, *Psammodromus algirus* (CMFS 18694; CM 53184) taken.

1850 hrs, juvenile *Discoglossus jeanneae*, not collected.

1855 hrs, adult *Psammodromus algirus* in ES 246 (low coniferous bush).

1857 hrs, adult *Natrix maura* dead in field, cause unknown.

1945 hrs, 21.1°C .

1954 hrs, juvenile *Pelodytes ibericus* (CMFS 18698 [14]; CM 53188[14]) under rock.

1955 hrs, *Timon lepidus* under rock in depression which used to be a filled vernal pond.

1957 hrs, juvenile *Discoglossus jeanneae* (CMFS 18698[14];CM 53188[14]) picked up in damp

soil under rock.

2000 hrs, 2 *Discoglossus jeanneae* under rock in same area. *Rattus* observed.

2005 hrs, *Discoglossus jeanneae* under rock in area of *Juncus acutus* L. (Juncaceae).

2027 hrs, 2 *Discoglossus jeanneae* under board.

2030 hrs, 5 *Discoglossus jeanneae* under rocks and paper in wet mud.

2033 hrs, *Natrix maura* (CMFS 18696; **CM 53186**) under rock in warm/damp soil.

2040 hrs, 18.9°C.

2050 hrs-2112 hrs, larval series taken containing *Pelobates cultripes* (CMFS 18701; CM

53191[17]), *Pleurodeles waltl* (CMFS 18699-18700; CM 53189-53190).

2112 hrs = 20.0°C.

Area dominantly *Juncus acutus* L. (Juncaceae) with *Cistus crispus* L. (Cistaceae) at tops of sandy knolls. Contains some *Halimium* *halimiifolium* but *Cistus* *crispus* is clearly more abundant. Lowland areas which contain depressions are surrounded by grass (ES 247) and the *Pinus pinea* in area contains a juniper-like shrub (ES 246) which is clearly second only to *Cistus crispus*. *Halimium* *halimiifolium* may require a more sandy soil or perhaps less moisture than that to which this area is subject.

2140 hrs, *Pelobates cultripes* (CMFS 18697; CM 53187) and ES 255 (Coleoptera, Scarabaeidae

CM accession 24266) taken.

**1970, 22 May, Vejer de la Frontera-Facinas-Tarifa-Los Barrios,** 1709 hrs-2137 hrs.

**1970, 22 May, Vejer de la Frontera (N36.26089 W5.96476), N-340**

7.3 mi. ESE, 1826 hrs, *Timon lepidus* D.O.R., *Timon lepidus* A.O.R..

**1970, 22 May, Vejer de la Frontera (N36.26089 W5.96476), N-340 -2-**

8.5 mi. ESE, *Malpolon monspessulanus* D.O.R..

12.1 mi. ESE, 1832 hrs, *Natrix maura* D.O.R..

19.1 mi. ESE, 1845 hrs, *Malpolon monspessulanus* D.O.R..

19.4 mi. ESE, 1849 hrs, 26.7°C, 3 *Timon lepidus* on rocks by intermittent stream.

**1970, 22 May, Facinas, E on CA-221 then S on unmarked (CA-9210; N36.15639 W5.68126 )**

**road.**

0.6 mi. E, 1 mi. S on unmarked road (CA-9210; N36.15639 W5.68126 ), 1908 hrs, 22.8°C, *Hyla*

*meridionalis* (CMFS 18704; CM 53194) taken from stone wall in reflected sunlight.

0.6 mi. E, 1.8 mi. S on CA-9210 (unmarked road), 1921 hrs, 21.7°C, juvenile *Timon lepidus* seen.

0.6 mi. E, 1.8 mi. S on CA-9210 (unmarked road), 1921 hrs, 21.7°C, adult *Hemidactylus turcicus*

(CMFS 18705; CM 53195) taken under rock.

0.6 mi. E, 2.0 mi. S, 1931 hrs, *Podarcis vaucheri* shot at on culvert.

0.6 mi. E, 2.6 mi. S, large spider picked up.

0.6 mi. E, 3.0 mi. S, 1949 hrs, 21.1°C , *Timon lepidus* seen on stone wall.

**1970, 23 May, Intersection (1969-1972) of C-440 with road to Facinas (=CA-221)**

**(N36.20760 W5.54189**)

0902 hrs-1800 hrs

0.2 mi. S, 0902 hrs, 21.7°C, *Tarentola mauritanica* (CMFS 18710-18720; CM 53200[11]).

0.2 mi. S, 0902 hrs, 21.7°C, *Podarcis vaucheri* shot while sunning on culvert.

0.3 mi. SW, 0919 hrs, 22.2°C, *Tarentola mauritanica* , young *Hemorrhois hippocrepis* on stone

abutment.

0.4 mi. SW, 0924 hrs, 25.0°C, adult *Timon lepidus* , 2 adult *Hemorrhois hippocrepis,* 4-5 *Tarentola mauritanica* (2 collected [CMFS 18710-18720]; CM 53200[11]) on wall.

0.4 mi. SW, 0930 hrs, 22.8°C, adult *Podarcis vaucheri* (CMFS 18733, 18735-18737, 18739; CM

53213[5], CMFS 18734, 18738, 18740-18741; UCM 44980-44983).

0.5 mi. SW, *Tarentola mauritanica* on retaining wall.

0.5 mi. SW, 0937 hrs, 23.3°C , *Timon lepidus* , juvenile *Tarentola mauritanica* on retaining

wall.

0.8 mi. SW, 0939 hrs, 22.2°C, adult *Tarentola mauritanica* on abutment.

1.1 mi. SW, 0947 hrs, 22.2°C, *Tarentola mauritanica* (CMFS 18710-18720; CM 53200[11])

shot from bridge.

1.2 mi. SW (N36.19494 W5.54594, 51 m) *Tarentola mauritanica* seen.

0950 hrs, 23.3°C, *Podarcis vaucheri* seen, *Psammodromus algirus* (CMFS 18707, 18708-18709; CM 53197, 53198-53199) shot while sunning on rock. Basic plant cover = *Gentista*.

2.3 mi. SW, 1011 hrs, 22.8°C, *Timon lepidus* (CMFS 18721-18732; CM 53201-53212) shot

while sunning.

2.9 mi. SW, 1024 hrs, 25.0°C *Timon lepidus* (CMFS 18721-18732; CM 53201-53212) shot off

wall.

3.8 mi. SW, a fresh water stream (rapidly moving) in which *Pelophylax perezi* was observed to

be quite active. *Pelophylax perezi* believed seen (No medioD.O.R.sal line) but.

4.0 mi. SW, 1100 hrs, 22.2°C, juvenile *Psammodromus algirus* in *Gentista* (few *Quercus* *suber*

in area). *Quercus* not at all common in area.

4.2 mi. SW, 1106 hrs, 27.8°C, juvenile *Timon lepidus* (CMFS 18721-18732; CM 53201-53212)

shot.

**1970, 23 May, Intersection (1969-1972) of C-440 with road to Facinas (=CA-221)**

**(N36.20760 W5.54189**) -2-

4.4 mi. SW, 1112 hrs, 24.4°C, in sun, *Pelophylax perezi* on rock.

4.4 mi. SW, 1115 hrs, 23.9°C, *Podarcis vaucheri* (CMFS 18733, 18735-18737, 18739; CM

53213[5], CMFS 18734, 18738, 18740-18741; UCM 44980-44983).

4.8 mi. SW, 1121 hrs, 23.9°C, *Timon lepidus* (CMFS 18721-18732; CM 53201-53212) shot.

5.0 mi. SW, 1130 hrs-1210 hrs, 23.3°C, in an area of an elevated plateau, a clearing between

*Quercus* *suber* areas, 2 *Timon lepidus* (CMFS 18721-18732; CM 53201-53212),

*Podarcis vaucheri* (CMFS 18733, 18735-18737, 18739; CM 53213[5], CMFS 18734,

18738, 18740-18741; UCM 44980-44983) under rock, *Bufo spinosus* (CMFS 18706;

CM 53196) collected. Juvenile *Timon lepidus* seen, ES 256-261 (CM unidentified; 256 from *Timon lepidus*, CMFS 18731) 257-261 captured under rocks. 2 specimens of each major plant type were collected.

5.1 mi. SW, 1225 hrs, 25.6°C , *Tarentola mauritanica* on bridge.

**1970, 23 May, 6.4 mi. SW (N36.14931 W5.58479) intersection (1969-1972) of C-440 with road to Facinas (=CA-221) and**

0.1 mi. SE, 1243 hrs, 25.6°C , *Podarcis vaucheri* (CMFS 18733, 18735-18737, 18739; CM

53213[5], CMFS 18734, 18738, 18740-18741; UCM 44980-44983) taken from bridge

(Arroyo del Tiradero).

0.8 mi. SE, 1252 hrs, 22.2°C, *Timon lepidus*

0.8 mi. SE, 1304 hrs, 22.8°C, another *Timon lepidus* in area of *Myrtus communis* and *Quercus*

*Suber.* .

0.9 mi. SE, 1327 hrs, 22.8°C, *Podarcis vaucheri* (CMFS 18733, 18735-18737, 18739; CM

53213[5], CMFS 18734, 18738, 18740-18741; UCM 44980-44983) shot.

1.5 mi. SE, N36.46835 W5.84245, 62 m, 1348 hrs, 21.1°C , three (3) *Tarentola mauritanica*,

one (1) collected (CMFS 18710-18720; CM 53200[11]) along with sub-adult

*Psammodromus algirus* (CMFS 18707; CM 53197).

1.6 mi. SE, 1442 hrs, 21.1°C , two *Tarentola mauritanica*

2.0 mi. SE, 1449 hrs, 21.1°C , *Psammodromus algirus* (CMFS 18707-18709; CM

53197-53199) collected.

2.1 mi. SE, 1454 hrs, 20.6°C , *Timon lepidus* (CMFS 18721-18732; CM 53201-53212) shot.

2.3 mi. SE, 1459 hrs, 20.0°C, *Podarcis vaucheri* alive on a wall in a heavily wooded area

covered with *Ulex*, *Quercus* *suber*, *Myrtus communis*, and Podiaceae.

3.2 mi. SE, 1512 hrs, 18.9°C, *Podarcis vaucheri* (CMFS 18733, 18735-18737, 18739; CM

53213[5], CMFS 18734, 18738, 18740-18741; UCM 44980-44983) shot from retaining

wall.

3.3 mi. SE, 1516 hrs, 25.0°C, sub-adult *Timon lepidus* (CMFS 18721-18732; CM 53201-53212). 3.4 mi. SE, 1518 hrs, 21.7°C, gravid *Timon lepidus* (CMFS 18721-18732; CM 53201-53212) .

3.4 mi. SE, 1522 hrs, 21.7°C, *Podarcis vaucheri* (CMFS 18733, 18735-18737, 18739; CM

53213[5], CMFS 18734, 18738, 18740-18741; UCM 44980-44983) shot.

2.4 mi. SE, 1540 hrs, 23.9°C, *Timon lepidus*

2.3 mi. SE, 1542 hrs, 22.2°C, *Timon lepidus*

2.1 mi. SE, 1543 hrs, 20.6°C , *Tarentola mauritanica*

1.8 mi. SE, 1547 hrs, 23.3°C , young adult *Timon lepidus*

**1970, 23 May, 6.4 mi. SW (N36.14931 W5.58479) intersection (1969-1972) of C-440 with road to Facinas (=CA-221) and (-2-)**

1.5 mi. SE, 1552 hrs, 22.2°C, two *Tarentola mauritanica* (CMFS 18710-18720; CM 53200[11])

collected on stone abutment.

1.4 mi. SE, 1558 hrs, 23.9°C, adult *Timon lepidus* (CMFS 18721-18732; CM 53201-53212) .

0.8 mi. SE, 1607 hrs, 23.3°C, another adult *Timon lepidus* (CMFS 18721-18732; CM 53201-

53212).

**1970, 23 May, Facinas (N36.14768 W5.70281), CA-221**

9.7 mi. NE, 1615 hrs, 23.9°C, *Podarcis vaucheri* on abutment on main road.

9.3 mi. NE, 1620 hrs, 21.7°C, *Timon lepidus* seen

8.3 mi. NE, 1629 hrs, 22.2°C, sub-adult *Tarentola mauritanica*

7.6 mi. NE, 1634 hrs, 23.9°C, two (2) *Tarentola mauritanica* shot off SE wall of abutment.

7.5 mi. NE, 1639 hrs, 23.9°C, two *Podarcis vaucheri* shot from bridge, only one saved as CMFS 18733, 18735-18737, 18739; CM 53213[5], CMFS 18734, 18738, 18740-18741;

UCM 44980-44983).

7.4 mi. NE, 1642 hrs, 23.9°C, *Tarentola mauritanica* shot, adult and sub-adult observed.

7.0 mi. NE, 1646 hrs, 22.2°C, *Timon lepidus Podarcis vaucheri* seen but not collected.

4.1 mi. NE, 1656 hrs, 20.6°C , *Timon lepidus* (CMFS 18721-18732; CM 53201-53212).

4.1 mi. NE, 1700 hrs, 22.2°C, *Timon lepidus* crossed the road.

ES 264 & ES 265 (plants, to CU, no identification)

**1970, 23 May, Tarifa (N36.02652 W5.60407), N-340**

10.2 mi. NW, *Malpolon monspessulanus* D.O.R..

9.2 mi. NW, *Timon lepidus* D.O.R..

**1970, 23 May, Los Barrios (N36.18209 W5.48920), C-440 (1969-1972)**

4.0 mi. N, *Pelophylax perezi* calling from rapidly flowing fresh stream in area.

1800 hrs, END survey.

**1970, 23 May, Puerto de Santa María (= Valdelagrana, N36.57945 W6.22406)**

*Chamaeleo chamaeleon* (CMFS 19139; CM 534190). Preserved 17 August 1970. W. J. Morgan, donated.

**1970, 24 May, Los Barrios-San Roque-San Enrique-San Martín del Tesorio-Sotogrande-Guiardo-Algeciras-Tarifa-Vejer de la Frontera-Puerto Real**

0903 hrs-1700 hrs

**1970, 24 May, Los Barrios (N36.18209 W5.48920), C-440 (1969-1972)**

4.2 mi. N, 0903 hrs, *Timon lepidus*

**1970, 24 May, San Enrique de Guadiaro, N36.30587 W5.29284**)**, A-2102**

1.4 mi. NE (~N36.31857 W5.30928), *Malpolon monspessulanus,* not saved D.O.R., 2 *Timon lepidus* in area.

**1970, 24 May, San Roque, N-340 (N36.20969 W5.38974)**

1.2 mi. SW (N36.20732 W5.40811), 1030 hrs, 23.9°C, *Natrix maura* D.O.R.

0.5 mi. SW(N36.20737 W5.39756), 1136 hrs, 21.1°C , 2 *Timon lepidus* D.O.R.

**1970, 24 May, Sotogrande, N-340 (N36.27668 W5.28288)**

2.7 mi. SW (N36.27857 W5.31481),1045 hrs, 23.9°C, *Timon lepidus* (CMFS 18746; CM 53218)

A.O.R.. Previously injured.

0.8 mi. NE, 2 sub-adult *Timon lepidus* D.O.R. (N36.29351 W5.29537).

**1970, 24 May, Algeciras (N36.12751 W5.44806), N-340**

2.2 mi. N, 1145 hrs, *Timon lepidus* D.O.R..

**1970, 24 May, Tarifa, 4.6 mi. NE via N-340 (Vicinity) ~ Puerto del Cabrito**

**Puerto del Cabrito** (N36.04086 W5.56835 from Google Earth), NW on dirt road

5.0 mi. NW, *Timon lepidus*

5.5 mi. NW, 1300 hrs, 24.4°C and windy, *Timon lepidus* on road.

7.3 mi. NW, *Tarentola mauritanica* on granite outcropping.

7.1 mi. NW, *Timon lepidus*

5.5 mi. NW, 1345 hrs, 26.1°C , *Tarentola mauritanica* (CMFS 18743; CM 53215) shot from

bridge.

4.4 mi. NW (~N36.05517, W5.65076), 1415 hrs-1445 hrs, series of *Hyla meridionalis* (CMFS

18745; CM 53217) larvae taken along with *Pelophylax perezi* (CMFS 18744; CM 53216)

from a pond with a rapidly moving, stone-bottomed, stream supplying its water. Temps:

20.0°C (H2O) and 24.4°C (air). *Natrix maura* in the pond foraging under loose rocks and

a lizard was also seen – species unknown.

1.9 mi. NW, 1452 hrs, 22.8°C, *Timon lepidus*

1.3 mi. NW, 1457 hrs, 21.1°C , *Timon lepidus*

**1970, 24 May, Tarifa (N36.02652 W5.60407), N-340**

1.8 mi. NE, 1510 hrs, *Timon lepidus* D.O.R..

10.8 mi. NW, *Timon lepidus*

11.2 mi. NW, 1526 hrs, fresh killed *Malpolon monspessulanus* D.O.R..

14.0 mi. NW, adult *Malpolon monspessulanus* (CMFS 18747; CM 53219) D.O.R.

14.0 mi. NW, adult *Natrix maura* D.O.R. seen.

14.0 mi. NW, 1532 hrs, 25.0°C, juvenile *Malpolon monspessulanus* (CMFS 18748; CM 53220)

taken.

**1970, 24 May, Vejer de la Frontera (N36.26089 W5.96476), N-340**

12.2 mi. SE, *Malpolon monspessulanus* D.O.R..

11.3 mi. SE, *Timon lepidus* D.O.R..

10.6 mi. SE, *Timon lepidus* D.O.R..

7.3 mi. SE (N-340, **N36.21923 W5.86371, 13 M**), *Natrix maura* (CMFS 18749; CM 53221) A.O.R.

4.3 mi. NW, *Timon lepidus* D.O.R..

6.5 mi. NW, *Malpolon monspessulanus* D.O.R..

12.2 mi. NW, *Malpolon monspessulanus* D.O.R..

**1970, 24 May, Puerto Real from N-IV at ~N36.53761 W6.16818 to C-440 via A-408**

0.5 mi. NW on N-340, *Timon lepidus* D.O.R.. 1700 hrs, survey ended.

**1970, 24 May, Chiclana de la Frontera (N36.42156 W6.14469), N-340**

0.8 mi. SE, 1100 hrs, 0.75-1 m. TL *Malpolon monspessulanus* D.O.R.. W. R. Maxwell report.

**1970, 24 May, Vejer de la Frontera (N36.26089 W5.96476), N-340,**

2.8 mi. W (N-340, **N36.25096 W6.00881, 52 M**), *Natrix maura* (CMFS 18751; **CM 53223**). , D.O.R. Lorraine Thompson Maxwell and William Robert Maxwell.

**1970, 25 May, Puerto Real-Intersection to C-440-Puerto Real**

2056 hrs-2235 hrs.

**1970, 25 May, Puerto Real from N-IV at ~N36.53761 W6.16818 to C-440 via A-408**

1.1 mi. E, 2105 hrs, 21.1°C , *Hyla meridionalis* active on road.

1.9 mi. E and 2.9 mi. E, hedgehogs noted.

4.4 mi. E, 2110 hrs, 21.1°C , *Timon lepidus* (CMFS 18752; CM 53224) collected D.O.R..

5.2 mi. E, *Pelobates cultripes* (CMFS 18755-18761; CM 5353227-53233) taken.

6.3 mi. E, 2130 hrs, 20.0°C, *Pelophylax perezi* (CMFS 18753; CM 53225) taken.

7.4 mi. E, *Pelobates cultripes* D.O.R..

7.7 mi. E, *Hyla meridionalis* (CMFS 18754; CM 53226) collected A.O.R..

9.1 mi. E, 2215 hrs, 18.9°C, 4 *Pelobates cultripes* (CMFS 18755-18761; CM 53227-53233).

**1970, 25 May,** **Puerto de Santa María,** 2.2 mi S Benchmark **(= Valdelagrana, N36.57447 W6.21956, 3 M)** *Natrix maura*(CMFS 18762-18763; **CM 53234-53235**).Donated by R. Goad and D. Wade.

**1970, 25 May,** **Base Naval de Rota, General (~N 36.627812 W6.331415)**

*Rhinechis scalaris.* (CMFS 18764; CM 53236).

**1970, 25 May, Puerto Real-Intersection to C-440-Puerto Real**

2056 hrs-2235 hrs.

**1970, 25 May, Puerto Real, from N-IV at ~N36.53761 W6.16818 to C-440 via A-408**

5.2 mi. E, 2230 hrs, 19.4°C, *Pelobates cultripes* (CMFS 18755-18761; CM 53227-53233)

collected A.O.R..

1.9 mi. E, *Pelobates cultripes* taken A.O.R..

1.5 mi. E, 2235 hrs, 18.3°C, final *Pelobates cultripes* (CMFS 18755-18761; CM 53227-53233)

for the evening collected.

**1970, 26 May, Jerez de la Frontera-El Cuervo-Jerez de la Frontera-Puerto de Santa María**

1900 hrs-2032 hrs, 22.8°C.

**1970, 26 May, Jerez de la Frontera (N36.71769 W6.10744), N-IV**4.7 mi. NNE, *Malpolon monspessulanus* D.O.R..

**1970, 27 May, Naval Base vicinity** Maxwell collection.

*Malpolon monspessulanus* (CMFS 18765; CM 53237)

*Rhinechis scalaris*(CMFS 18766; CM 53238)

**1970, 28 May**, (**presumably**) Base Naval de Rota (Benchmark) (**N36.637383,W6.346438, 20 M**). *Natrix maura* (CMFS 18772: **CM 53465**). Received alive, donors unknown. Date is preservation date.

**1970, 28 May, Naval Base-Jerez de la Frontera-Benalup de Sidonia-Alcalá de los Gazules-Casas del Castaño-Los Barrios-Tarifa-Vejer de la Frontera-Chiclana de la Frontera**

1600 hrs-2320 hrs, 23.3°C.

**1970, 28 May, Base Naval de Rota, Puerto gate (~N36.625823 W6.313244)**

1610 hrs, *Natrix maura* D.O.R.outside Puerto de Santa María gate.

**1970, 28 May, Jerez de la Frontera (Cartuja de Santa María de la Defenó), to SE**

**(N36.65556 W6.09378), C-440 (1969-1972)**

19.4 mi. SE, 1750 hrs, 25.6°C, *Timon lepidus* A.O.R..

20.7 mi. SE, 2½’-3’ *Rhinechis scalaris* D.O.R..

20.9 mi. SE, adult *Malpolon monspessulanus* D.O.R..

22.4 mi. SE, 1800 hrs, 24.4°C, *Timon lepidus* A.O.R..

24.8 mi. SE, *Timon lepidus* D.O.R..

28.4 mi. SE, large adult *Malpolon monspessulanus* D.O.R..

**1970, 28 May, Benalup de Sidonia (N36.35646 W5.79585), A-2228**

3.7 mi. NE, 1837 hrs, 23.3°C, *Timon lepidus* A.O.R..

**1970, 28 May, Alcalá de los Gazules (N36.43994 W5.71962), C-440**

1.2 mi. SE, 1931 hrs, 21.7°C, juvenile *Rhinechis scalaris* D.O.R..

4.0 mi. SE, large adult *Malpolon monspessulanus* D.O.R..

8.9 mi. SE, 2015 hrs, 19.4°C, 4’ adult *Malpolon monspessulanus* D.O.R..

**1970, 28 May, Los Barrios (N36.18209 W5.48920), C-440 (1969-1972)**

4.5 mi. NW, 2105 hrs, 14.4°C, *Bufo spinosus* (CMFS 18767; CM 53239) collected A.O.R..

1.3 mi. NW, 2117 hrs, 16.7°C, adult *Pelophylax perezi* (CMFS 18768; CM 53240) taken A.O.R..

**1970, 28 May, Tarifa (N36.02652 W5.60407), N-340**

3.8 mi. NE on N-340, juvenile *Rhinechis scalaris* (CMFS 18771; CM 53243) collected D.O.R..

10.0 mi. NW, *Malpolon monspessulanus* D.O.R..

13.5 mi. NW, *Natrix maura* D.O.R..

16.1 mi. NW, 2230 hrs, 14.4°C, adult *Pelobates cultripes* (CMFS 18769-18770; CM 53241-

53242) collected A.O.R..

29.2 mi. NW, *Malpolon monspessulanus* D.O.R..

**1970, 28 May, Vejer de la Frontera (N36.26089 W5.96476), N-340**

3.4 mi. NW, *Malpolon monspessulanus* D.O.R..

**1970, 28 May, Chiclana de la Frontera (N36.42156 W6.14469), N-340**

Large adult *Pelobates cultripes* (CMFS 18769-18770; CM 53241-53242) taken A.O.R. near center of town.

**1970, 29 May, Naval Base-Puerto de Santa María-Sanlúcar de Barrameda-Bonanza-Sanlúcar de Barrameda-Chipiona-Rota**

1100 hrs-1900 hrs, 26.1°C .

**1970, 29 May, Base Naval de Rota, General, (~N 36.627812 W6.331415) \***Anonymous donations.

*Epidalea calamita* (CMFS 18791; CM 53244)

*Acanthodactylus erythrurus* (CMFS 18794; CM 53256)\*

*Tarentola mauritanica* (CMFS 18795; CM 53257)\*

*Chamaeleo chamaeleon* (CMFS 18796; CM 53285)\*

ES 262 Buthidae, *Buthus occitanus*

**1970, 29 May, Puerto de Santa María, CA-603**

2.8 mi. NW, *Malpolon monspessulanus* D.O.R..

**1970, 29 May, La Algaida (=Bonanza,** 4.1 mi. N**) (N36.862136 W6.302683)**

1227 hrs-1700 hrs, 30.0°C, at forested collection area. *Pinus pinea* and sandy soil

covered w/ *Pinus* needles forms substrate.

1241 hrs, 4 *Acanthodactylus erythrurus* in sand dune area.

1245 hrs, 2 *Acanthodactylus erythrurus*

1247 hrs, *Acanthodactylus erythrurus* shot in Juniper.

1249 hrs, juvenile *Acanthodactylus erythrurus* shot in *Cistus crispus* and *Pistacia lentiscus*.

1257 hrs, sub-adult *Acanthodactylus erythrurus.*

1300 hrs, *Acanthodactylus erythrurus* in *Halimium halimiifolium.*

1303 hrs, 2 *Acanthodactylus erythrurus* in *Halimium halimiifolium.*

1306 hrs, 2 *Acanthodactylus erythrurus* in ES 14 (*Erica scoparia* L.).

1311 hrs, juvenile *Acanthodactylus erythrurus* (CMFS 18778-18790; CM 53471[13]) shot.

1315 hrs, 2 *Acanthodactylus erythrurus*

1321 hrs, adult *Acanthodactylus erythrurus* (CMFS 18778-18790; CM 53471[13]) shot.

1323 hrs, sub-adult *Acanthodactylus erythrurus*

1328 hrs, sub-adult *Psammodromus algirus* (CMFS 18774-18777; CM 53467-53470) climbing

*Pinus pinea* trunk in a spiral (=corkscrew) fashion as per: (See drawing).

1336 hrs, sub-adult *Psammodromus algirus* (CMFS 18774-18777; CM 53467-53470) shot in

*Halimium halimiifolium.*

1337 hrs, adult *Acanthodactylus erythrurus* shot.

1343 hrs, *Psammodromus algirus* shot from Juniper.

1351 hrs, juvenile *Acanthodactylus erythrurus* shot while under *Halimium halimiifolium*.

1354 hrs, adult *Acanthodactylus erythrurus* shot.

**1970, 29 May, La Algaida (=Bonanza,** 4.1 mi. N**) (N36.862136 W6.302683) -2-**

1405 hrs, *Psammodromus algirus* in shaded area in sandy substrate under *Pinus pinea.*

1410 hrs, *Acanthodactylus erythrurus*

1417 hrs, *Acanthodactylus erythrurus* under *Cistus crispus* and *Pistacia lentiscus.*

1424 hrs, *Psammodromus algirus*, not taken.

1427 hrs, juvenile and adult *Acanthodactylus erythrurus* in *Pistacia lentiscus*.

1436 hrs, *Acanthodactylus erythrurus* in *Pistacia lentiscus*.

1446 hrs, 2 sub-adult *Acanthodactylus erythrurus* shot under *Halimium halimiifolium.*

1452 hrs, adult *Acanthodactylus erythrurus* in *Halimium halimiifolium.*

1500 hrs, 2 adult *Psammodromus algirus* under bush.

1504 hrs, juvenile *Acanthodactylus erythrurus*

1506 hrs, adult *Acanthodactylus erythrurus* shot under *Halimium halimiifolium.*

1508 hrs, *Acanthodactylus erythrurus* under *Pistacia lentiscus* (Anacardiaceae).

1517 hrs, *Psammodromus algirus* (♀) shot under Juniper-like bush.

1535 hrs, *Acanthodactylus erythrurus* shot.

1544 hrs, *Acanthodactylus erythrurus* in Juniper.

1546 hrs, sub-adult *Acanthodactylus erythrurus* shot, *Psammodromus algirus* in Juniper.

1549 hrs, juvenile *Acanthodactylus erythrurus* very active.

1551 hrs, sub-adult *Acanthodactylus erythrurus* shot.

1557 hrs, *Acanthodactylus erythrurus*

1600 hrs, 3 *Acanthodactylus erythrurus* in sand-dune area.

1605 hrs, *Acanthodactylus erythrurus* in Juniper.

1614 hrs, *Psammodromus algirus*

1617 hrs, *Psammodromus algirus* shot.

1620 hrs, *Acanthodactylus erythrurus* shot.

1635 hrs, *Acanthodactylus erythrurus*

1635 hrs, *Psammodromus algirus*

1700 hrs, adult *Psammodromus algirus* sunning in “sunspot” in open sandy area.

**NOTE: 6 adults, 4 sub-adults, & 3 juveniles recorded as shot.**

**1970, 29 May, Bonanza (N36.80214 W6.33585), CA-9027**

ES 263 (unidentified)

5.4 mi. N, *Malpolon monspessulanus* D.O.R.and has been there at least since 1300 hrs.

6.7 mi. N, 1809 hrs, 27.8°C, *Malpolon monspessulanus* A.O.R., not collected.

**1970, 29 May, Chipiona (N36.73894 W6.41988), C-441**

1.8 mi. NE, large *Malpolon monspessulanus* D.O.R..

**1970, 30 May, Rota**

1.5 mi. N and E, 2300 hrs, *Malpolon monspessulanus* D.O.R. noted by W.R. Maxwell on

perimeter road around Naval Base.

**1970, 01 June, Puerto de Santa María (= Valdelagrana, N36.57945 W6.22406)**

ES 266 (not identified)

**1970, 01 June, Rota to Puerto de Santa Maria Maxwell collection.**

*Malpolon monspessulanus* D.O.R. (CMFS 18792-18793; CM 53254-53255).

**1970, 06 June, Puerto Real, from N-IV at ~N36.53761 W6.16818 to C-440 via A-408**

2130 hrs-2400 hrs

Several *Pelobates cultripes* (CMFS 18810 [18]-18823; CM 53272[18]- 53273[13]),

*Hyla meridionalis* (CMFS 18797-18800; CM 53259-53262),

*Pelodytes ibericus* (CMFS 18801-18803; CM 53262-53265),

*Discoglossus g. jeanneae*  (CMFS 18804-18807; CM 53266-53269),

1 *Pelophylax perezi* (CMFS 18808-18809; CM 53270-53271), and

2 *Pleurodeles waltl* (CMFS 18824-18825, 18827, 18829, 18831, & 18833; CM 53274[6]; CMFS

18826, 18828, 18830, 18832; UCM 44911-44914) collected.

*Hyla meridionalis* taken this evening are first hatchlings seen this year.

**1970, 07 June,** **Puerto Real-Medina Sidonia**

0116 hrs-0400 hrs, 17.8°C.

**1970, 07 June,** **Puerto Real, from N-IV at ~N36.53761, W6.16818 to C-440 via A-408**

3.6 mi. E, *Pleurodeles waltl* (CMFS 18824-18833) collected A.O.R..

3.8 mi. E, 0120 hrs, 16.7°C, *Pelobates cultripes* (CMFS 18810 [18]-18823) collected A.O.R..

6.3 mi. E, 0135 hrs, 16.1°C, *Pleurodeles waltl* (CMFS 18824-18833) taken A.O.R..

6.6 mi. E, *Rhinechis scalaris* D.O.R..

12.8 mi. E, *Discoglossus g. jeanneae*  A.O.R..

15.4 mi. E, 0245 hrs, 15.0°C, *Discoglossus g. jeanneae*  (CMFS 18804-18807) A.O.R..

**1970, 07 June,** **Intersection of C-440 and Puerto Real road (N36.52459 W5.98461)**

12.8, 11.1, 9.5 mi. SE, *Pelobates cultripes* (CMFS 18810 [18]-18823) collected.

8.9 mi. SE, 0315 hrs, 15.6°C, *Pleurodeles waltl* (CMFS 18824-18833)

7.2 mi. E, *Malpolon monspessulanus* D.O.R..

4.8 mi. SE, 0325 hrs, 16.7°C, *Pelobates cultripes* (CMFS 18810 [18]-18823) collected.

**1970, 07 June,** **Puerto Real, from N-IV at ~N36.53761, W6.16818 to C-440 via A-408**

2.1 mi. E, 0330 hrs, *Pleurodeles waltl* (CMFS 18824-18833) taken A.O.R..

**1970, 09 June, Chiclana de la Frontera (N36.42156 W6.14469), N-340**

14.1 mi. S, *Malpolon monspessulanus* D.O.R.. Maxwell coll.

**1970, 09 June, Puerto de Santa María-Jerez de la Frontera-Arcos de la Frontera-Algar-Tempul-San José del Valle-La Barca de la Florida-Jerez de la Frontera-Puerto de Santa María**

1930 hrs-2330 hrs, 20.0°C.

**1970, 09 June, Puerto de Santa María, CA-603**

2.8 mi. N, *Malpolon monspessulanus* D.O.R..

**1970, 09 June,** **Jerez de la Frontera**, **(from N36.68000 W6.15093, 3 miles NW, then**

**N36.69037 W6.20347 to West) , unmarked road, (A-2078)**

6.0 mi. W, (N36.66711 W6.24536) *Timon lepidus* D.O.R..

**1970, 09 June, Arcos de la Frontera (N36.73904 W5.79693), CA-6104.**

9.1 mi. SE, *Timon lepidus* D.O.R..

**1970, 09 June, Algar (N36.65531 W5.65956), CA-521**

0.9 mi. WSW, 2107 hrs, 15.6°C, juvenile *Discoglossus g. jeanneae*  (CMFS 18834; CM 53275).

2.5 mi. WSW, 2118 hrs, 16.7°C, *Rhinechis scalaris* (CMFS 18840; CM 53281) collected A.O.R..

**1970, 09 June, Tempul (N36.63853 W5.67598), CA-503**

3.0 mi. WNW, 2135 hrs, 15.0°C, *Epidalea calamita* (CMFS 18836-18839; CM 53277-53280).

**1970, 09 June, La Barca de la Florida (N36.64927 W5.93386)**

4.2 mi. ESE, CA-503, 2214 hrs, 14.4°C, *Epidalea calamita* (CMFS 18836-18839; CM 53277-

53280).

1.8 mi. WNW, CA-502, 2214 juvenile *Pelobates cultripes* (CMFS 18835; CM 53276) collected

A.O.R..

5.2 mi. WNW, CA-502, 2238 hrs, 14.4°C, another *Epidalea calamita* (CMFS 18836-18839; CM

53277- 53280) found A.O.R..

**1970, 10 June,** **Rota (N36.62899 W6.35430)-Chipiona (N36.70769 W6.41560) Road**

1800 hrs-2000 hrs.

2 *Malpolon monspessulanus* D.O.R. on highway.

**1970, 12 June, Rota-Chipiona-Sanlúcar de Barrameda-Bonanza and La Algaida**

1245 hrs-1930 hrs.

**1970, 12 June, La Algaida (N36.862136 W6.302683)**

1406 hrs, 26.7°C, *Acanthodactylus erythrurus* active on road.

1435 hrs, 25.0°C, *Acanthodactylus erythrurus* on property.

1439 hrs, 1 adult, 1-subadult *Acanthodactylus erythrurus*

1441 hrs, 2 *Acanthodactylus erythrurus* active in *Halimium halimiifolium* area….

1449 hrs, adult *Acanthodactylus erythrurus* shot.

1453 hrs, 2 adult, 1 sub-adult *Malpolon monspessulanus* in *Cistus crispus.*

1456 hrs, *Psammodromus algirus* in *Halimium halimiifolium* .

1504 hrs, *Psammodromus algirus* taken in *Cistus crispus.*

1507 hrs, 2 *Psammodromus algirus*

1510 hrs, 1 *Acanthodactylus erythrurus*

1513 hrs, *Acanthodactylus erythrurus* shot in *Cistus crispus.*

1518 hrs, *Psammodromus algirus* shot in *Pistacia lentiscus*.

1520 hrs, *Psammodromus algirus* shot in *Cistus crispus.*

1526 hrs, *Psammodromus algirus* shot in *Pistacia lentiscus*.

1530 hrs, *Psammodromus algirus*

1534 hrs, 2 *Psammodromus algirus* in Juniper.

**1970, 12 June, La Algaida (N36.862136 W6.302683) -2**

1539 hrs, *Acanthodactylus erythrurus* shot under Juniper.

1543 hrs, *Psammodromus algirus* shot under Juniper.

1545 hrs, *Psammodromus algirus* under Juniper

1549 hrs, 2 *Acanthodactylus erythrurus*

1552 hrs, *Psammodromus algirus* shot in *Halimium halimiifolium* -Juniper area.

1554 hrs, *Acanthodactylus erythrurus* under Juniper.

1558 hrs, 2 *Acanthodactylus erythrurus* shot while sunning near *Halimium halimiifolium*.

1604 hrs, *Acanthodactylus erythrurus* shot on sand dune.

1610 hrs, *Psammodromus algirus* in Juniper.

1613 hrs, *Psammodromus algirus* in *Pistacia lentiscus*.

1616 hrs, *Acanthodactylus erythrurus* in *Cistus crispus*, *Halimium halimiifolium.*

1616 hrs, *Psammodromus algirus* in *Cistus crispus*, *Halimium halimiifolium.*

1622 hrs, *Acanthodactylus erythrurus …*

1623 hrs, *Psammodromus algirus* in *Halimium halimiifolium* and *Cistus crispus*.

1630 hrs, END SURVEY, 26.1°C .

1810 hrs, 25.0°C, 2 *Acanthodactylus erythrurus* sunning on road shoulder.

CMFS 18841-18847 (CM 53282-53288): *Acanthodactylus erythrurus*

**1970, 12 June, La Algaida (N36.862136 W6.302683) -2-**

CMFS 18848-18852 (CM 53289-53293): *Psammodromus algirus*

Es 267 (Homoptera, Cercopidae) and ES 268 (Diptera, Tabanidae) CM accession 24782)

**1970, 12 June, Sanlúcar de Barrameda, CA-9027**

0.3 mi. NE, *Malpolon monspessulanus* D.O.R..

**1970, 13 June, Jerez de la Frontera-La Barca de la Florida-Arcos de la Frontera-San José del Valle-Tempul-Galis-Ubrique-Benaocaz-Grazalema-Zahara-Algodonales**

0530 hrs-1646 hrs

**1970, 13 June, Base Naval de Rota, General, (~N 36.627812 W6.331415)**

0540 hrs, *Malpolon monspessulanus* D.O.R.*.*

**1970, 13 June, La Barca de la Florida, 4.9 mi. E on CA-503 (N36.63536 W5.88744, 76 m)**

0628 hrs, 14.4°C .

0641 hrs, 14.66°C, *Psammodromus algirus* (CMFS 18853-18854; CM 53304-53306) captured, pile of discarded *Myrtus communis*.

0645 hrs, 14.74°C, *Psammodromus algirus* seen in *Chamaerops humilis.*

0648 hrs, 14.80°C, *Psammodromus algirus* (CMFS 18853-18854; CM 53304-53306) in low brush.

0654 hrs, 4 *Timon lepidus* (Actually probably Quail) (CMFS 18862; CM 53303) eggs picked up from soft, moist soil under *Lavandula stoechas*.

0655 hrs, rabbit seen.

0659 hrs, 15.02°C, *Psammodromus algirus*

0701 hrs, 15.06°C, *Psammodromus algirus* in area of *Erica scoparia* L. and ES 13 (Unidentifiable from sample)

0710 hrs, 15.24°C, *Psammodromus algirus* captured in low brush,

0717 hrs, 15.38°C, *Psammodromus algirus* in *Erica scoparia* L.

0728 hrs, 15.6°C, 0742 hrs, 15.6°C.

0751 hrs, 15.96°C, *Psammodromus algirus* in *Quercus coccifera*.

**1970, 13 June, La Barca de la Florida, 4.9 mi. E on CA-503 (N36.63536 W5.88744, 76 m) -2-**

0757 hrs, 16.21°C, *Psammodromus algirus* (CMFS 18863-18865; CM 53304-53306) in *Quercus coccifera* while it was sunning. While climbing the species appears to use its front feet to pull body along and hind feet sometimes not used for locomotion but, rather, for stabilization.

0810 hrs, 16.21`°C, 2 *Psammodromus algirus* active on tops of brushes and later on sand below.

0813 hrs, 16.85°C, *Psammodromus algirus* in *Quercus coccifera*.

0817 hrs, 16.85°C, 2 adult *Psammodromus algirus* seen in *Quercus coccifera* and *Myrtus*  *communis.*

0821 hrs, 17.18°C, *Psammodromus algirus* sunning in *Quercus coccifera* and noted to move in short, jerky movements. While sunning it will move from branch-branch several times in

course of a 2-minute time period.

0823 hrs, 17.26°C, *Psammodromus algirus* in *Myrtus communis* and dew starting to evaporate.

0828 hrs, 17.46°C, *Psammodromus algirus* in *Pistacia lentiscus*.

0834 hrs, 17.70°C, *Acanthodactylus erythrurus* active in area of *Halimium halimiifolium, Quercus coccifera*, and *Myrtus communis*.

0842 hrs, 18.02°C, *Psammodromus algirus* active *Quercus coccifera*.

0846 hrs, 18.18°C, *Acanthodactylus erythrurus* in *Halimium halimiifolium* .

0847 hrs, 18.22°C, *Acanthodactylus erythrurus* in *Quercus coccifera*.

0849 hrs, 18.3°C, end.

**1970, 13 June, San José del Valle (N36.61248 W5.80463), CA-503 (A-2201)**

1.3 mi. ESE, *Malpolon monspessulanus* D.O.R..

**1970, 13 June, Tempul (N36.61248 W5.80463), CA-503 (A-2201)**

1.7 mi. E, 0941 hrs, 21.7°C, small *Timon lepidus* A.O.R..

4.7 mi. E, *Bufo spinosus* D.O.R..

5.9 mi. E, 1004 hrs, 25.0°C, *Blanus cinereus* (CMFS 18859; CM 53300) A.O.R..

See: 1978. Diurnal surface activity in the amphisbaenian, *Blanus cinereus* (Vandelli)

1797 (Reptilia, Lacertilia, Amphisbaenidae). **Journal of Herpetology** 12(3):428.

6.1 mi. E, 1007 hrs, 22.2°C, *Timon lepidus* (CMFS 18857; CM 53298) shot.

7.8 mi. E, 1017 hrs, 19.4°C, *Timon lepidus*

**1970, 13 June, Ubrique (N36.67253 W5.44669), C-333**

17.2 mi. SW, 1031 hrs, 20.6°C, sub-adult *Timon lepidus* active in rock pile.

16.8 mi. SW (N36.55800 W5.62323, 283 m), 1030 hrs-1049 hrs, 24.4°C (air), *Psammodromus algirus* (CMFS 18853-18854; CM 53294-53295) shot, *Pelophylax perezi* (CMFS 18858; CM 53299) found in a cold, fast-running stream, *Podarcis vaucheri* seen.

16.7 mi. SW, 1051 hrs, 23.3°C, *Timon lepidus* active.

16.7 mi. SW, 1055 hrs, 24.4°C, adult *Hemorrhois hippocrepis* (CMFS 18860; CM 53301)

captured from stone wall.

16.0 mi. SW (**A-2304, N36.55634 W5.56632, 494 M**), 1100 hrs-1109 hrs, 26.1°C, *Natrix maura* (CMFS 18861; **CM 53302**) found under rock near vernal pond, 2 *Psammodromus algirus* seen, scorpion (ES 271, Buthidae, *Buthus occitanus*) found. ES 269 (Hymenoptera, Apoidea, CM accession 24782). ES 270 unidentified.

15.4 mi. SW, 1122 hrs, 23.9°C, *Podarcis vaucheri.*

15.1 mi. SW, 1125 hrs, 22.8°C, *Timon lepidus.*

**1970, 13 June, Intersection to Ubrique-Cortes (A-2304 & A-373; N36.61971 W5.45437)**

1.0 mi. E, *Natrix maura* D.O.R..

1.4 mi. E, Málaga Province line (N36.61838 W5.43271, Google Earth, OCT 2014).

**1970, 13 June, Ubrique (N36.67253 W5.44669), C-333**

1.2 mi. S, *Bufo spinosus* D.O.R. (probably *spinosus* from size).

**1970, 13 June, Benaocaz (N36.70016 W5.42317), C-333 (A-2302)**

3.0 mi. SW, *Rhinechis scalaris* D.O.R..

0.3 mi. S, 1.8 m (±) *Rhinechis scalaris* decapitated D.O.R..

1.9 mi. S and E, ~ 1.2 m *Rhinechis scalaris* D.O.R..

2.2. mi. S and E, adult *Malpolon monspessulanus* D.O.R..

**1970, 13 June, Grazalema (N36.75884 W5.37326), C-344 (A-372)**

1.7 mi. E, 4’ *Rhinechis scalaris* D.O.R..*.*

3.1 mi. W and N, 1510 hrs, 23.9°C, 2 *Podarcis vaucheri* (CMFS 18855-18856; CM 53296-

53297) shot, *Psammodromus algirus* noted.

**1970, 13 June, Zahara de la Sierra (N36.84694 W5.39712), CA-531**

5.4 mi. S, 1530-1542 hrs, 18.3°C, 2 *Podarcis vaucheri*

3.9 mi. S, juvenile *Rhinechis scalaris* (CMFS 18882; CM 53323) D.O.R..

**1970, 13 June, Algodonales (N36.87596 W5.40170), N-342**

1.0 mi. SE, 1620 hrs, 24.4°C, *Timon lepidus* A.O.R..

2.2 mi. NW, 1646 hrs, 25.6°C, *Psammodromus algirus*, 2-3 *Pelophylax perezi*

**1970, 14 June, Algodonales-Olvera-Setenil-El Gastor-Algodonales-Villamartín-Bornos-Arcos de la Frontera**

1000 hrs-1800 hrs, 21.1°C, clear and sunny.

**1970, 14 June, Algodonales (N36.87596 W5.40170), N-342, then C-339**

2.0 mi. W on N-342, then 3.8 mi. N on C-339 (in Cádiz Province - road to Morón), N36.91652 W5.42705, 496 m, 1045 hrs, *Psammodromus algirus* (CMFS 18866-18871; CM 53309-53312)shot.

2.0 mi. W on N-342, then 3.8 mi. N on C-339, 1045 hrs, *Timon lepidus* A.O.R..

**1970, 14 June, Algodonales (N36.87596 W5.40170), N-342**

4.4 mi. E, *Malpolon monspessulanus* D.O.R..

4.5 mi. E, *Pelophylax perezi* heard calling from stream.

7.6 mi. E, N36.94641 W5.31994, 416 m, 1200 hrs-1230 hrs, 23.3°C, 5 *Psammodromus algirus* (CMFS 18866-18871; CM 53309-53312) collected, one observed under slightly overcast skies.

**1970, 14 June, Olvera (N36.92582 W5.25490), N-342**

5.1 mi. SW, 1321 hrs, 24.4°C, *Timon lepidus* (CMFS 18875; CM 53316) shot.

6.9 mi. SW, elevation is marked 403 m.

7.4 mi. SW, 2 *Malpolon monspessulanus* D.O.R..

**1970, 14 June, Setenil de las Bodegas (N36.86235 W5.18572), CA-9120**

3.5 mi. NW, 1412 hrs, 24.4°C, *Malpolon monspessulanus* D.O.R., *Psammodromus algirus* alive on bridge abutment.

2.9 mi. NW, 1415 hrs-1430 hrs, 27.8°C, 2 *Pelophylax perezi* (CMFS 18873-18874; CM 53314-

53315), *Podarcis vaucheri* (CMFS 18872; CM 53313) captured. *Pelophylax* habitat was

rapid moving freshwater stream.

**1970, 14 June, Algodonales (N36.87596 W5.40170), N-342**

3.5 mi. W, *Malpolon monspessulanus* D.O.R..

**1970, 14 June, El Gastor (N36.85694 W5.32386), CA-9113**

6.5 mi. E, 1509 hrs, 24.4°C, *Timon lepidus* (N36.86208 W5.22833).

5.4 mi. E, *Malpolon monspessulanus* D.O.R. (N36.86310 W5.24744).

**1970, 14 June, Villamartín (N36.85870 W5.63933), N-342**

1.2 mi. SW, *Timon lepidus* D.O.R..

2.8 mi. SW, *Malpolon monspessulanus* D.O.R..

3.4 mi. SW, *Timon lepidus* A.O.R..

**1970, 14 June, Arcos de la Frontera (N36.75559 W5.82017), N-342**

4.0 mi. NE, *Malpolon monspessulanus* D.O.R..

**1970, 16 June, NAVBASE-Vejer de la Frontera-Cabo Trafalgar-Vejer-Barbate de Franco-Vejer-Chiclana de la Frontera**

2100 hrs-2400 hrs

**1970, 16 June, Vejer de la Frontera (N36.26089 W5.96476), N-340**

1.4 mi. NW, adult *Rhinechis scalaris*(1.4-1.5 m TL) D.O.R..

2.4 mi. SW, 2211 hrs, 16.1°C, *Pelodytes ibericus* (CMFS 18877; CM 53318) collected.

**1970, 16 June, Cabo Trafalgar (~N36.18564 W6.03306), A-2230**

1.9 mi. N, 2226 hrs, 17.8°C, large *Bufo spinosus* (CMFS 18880; CM 53321) collected.

1.8 mi. N, 2227 hrs, 16.7°C, juvenile *Pelobates cultripes* (CMFS 18879; CM 53320) A.O.R..

4.6 mi. N, 2249 hrs, 16.7°C, *Pelobates cultripes* (CMFS 18876; CM 53317) A.O.R..

**1970, 16 June, Barbate de Franco (N36.19495 W5.91768), C-343**

3.1 mi. NW, 2340 hrs, 14.4°C, juvenile *Hyla meridionalis* (CMFS 18878; CM 53319) A.O.R..

**1970, 17 June, Chiclana de la Frontera (N36.42156 W6.14469), N-340**

7.8 mi. SE, 0007 hrs, 18.3°C, *Bufo spinosus* (CMFS 18881; CM 53322) A.O.R..

**1970, 18 June, Puerto de Santa María-Chiclana de la Frontera-Vejer de la Frontera-Tarifa-Algeciras-Los Barrios-Alcalá de los Gazules-Puerto Real**

2000 hrs-2400 hrs, 16.1°C.

**1970, 18 June, Los Barrios (N36.18209 W5.48920), C-440 (1969-1972)**

5.1 mi. NW, 2219 hrs, 16.1°C, *Hyla meridionalis* (CMFS 18884; CM 53325) A.O.R..

5.6 mi. NW, 2220 hrs, 16.1°C, *Discoglossus g. jeanneae* (CMFS 18883; CM 53324)

**PARATYPE** collected A.O.R.. collected

6.6 mi. NW, 2231 hrs, 15.6°C, *Bufo spinosus* (CMFS 18885-18889; CM 53326-53330) A.O.R..

7.4 mi. NW, 2235 hrs, 15.6°C, another *Bufo spinosus* (CMFS 18885-18889; CM 53326-53330). 9.2 mi. NW, *Caprimulgus europaeus* seen, critical distance ±8 feet from my car.

14.2 mi. NW, 2305 hrs, 12.8°C, *Bufo spinosus* (CMFS 18885-18889; CM 53326-53330) A.O.R. 14.2 mi. NW, 2305 hrs, 12.8°C, *Hyla meridionalis* calling in the distance.

**1970, 18 June, Alcalá de los Gazules, (N36.43994 W5.71962), C-440**

14.3 mi. SE, *Timon lepidus* D.O.R..

9.0 mi. SE, 2326 hrs, 15.6°C, *Bufo spinosus* (CMFS 18885-18889; CM 53326-53330)

A.O.R./D.O.R..

6.9 mi. SE, another *Caprimulgus europaeus* noted, this specimen appeared to have a critical distance for flight-fight reaction of < 1 m.

4.5 mi. SE, 2342 hrs, 13.9°C, *Bufo spinosus* (CMFS 18885-18889; CM 53326-53330) collected.

**1970, 18 June, Alcalá de los Gazules, (N36.44084 W5.72006), C-440**

2.7 mi. WNW, *Timon lepidus* D.O.R., full moon is in evidence.

5.6 mi. WNW, abundance of *Lepus* sp*.* (9+) in past 3.2-4.8 km.

9.5 mi. WNW, rabbits still in evidence.

**1970, 18 June, Puerto Real, N-IV (~N36.53761 W6.16818) to C-440 via A-408**

11.5 mi. E, 3 *Lepus*.

**1970, 19 June, Puerto Real**

2400 hrs-0100 hrs

**1970, 19 June, Puerto Real, N-IV at ~N36.53761 W6.16818 to C-440 via A-408**

0.5 mi. E, 0055 hrs, 15.6°C, *Hyla meridionalis* A.O.R. (not collected).

**1970, 19 June, Rota-Chipiona-Sanlúcar-La Algaida**

1330 hrs-1835 hrs, 21.1°C, clear and sunny.

**1970, 19 June, La Algaida (N36.862136 W6.302683)**

*Timon lepidus* D.O.R. on N side.

1425 hrs, 24.4°C, *Acanthodactylus erythrurus*

1426 hrs, 25.0°C.

1432 hrs, *Psammodromus algirus* shot in *Cistus crispus* (♀).

1436 hrs, *Psammodromus algirus* in *Juniperus phoenicea*.

1438 hrs, *Acanthodactylus erythrurus* in *Juniperus phoenicea*.

**1970, 19 June, La Algaida (N36.862136 W6.302683) -2-**

1446 hrs, *Acanthodactylus erythrurus* shot in *Halimium halimiifolium*.

1450 hrs, *Acanthodactylus erythrurus* in *Halimium halimiifolium*.

1451 hrs, *Acanthodactylus erythrurus* in *Halimium halimiifolium*.

1456 hrs, *Acanthodactylus erythrurus* shot in open sand, shade, near *Cistus crispus*, and a **second**

specimen observed.

1458 hrs, *Acanthodactylus erythrurus* in *Cistus crispus*.

1500 hrs, *Psammodromus algirus* under *Pinus pinea* in low foliage.

1506 hrs, *Acanthodactylus erythrurus* in *Cistus crispus.*

1507 hrs, *Acanthodactylus erythrurus* shot in *Cistus crispus*, *Halimium halimiifolium* area.

1511 hrs, *Acanthodactylus erythrurus* in *Cistus crispus*, *Halimium halimiifolium*, and *Juniperus*

*phoenicea* area.

1512 hrs, *Timon lepidus*

1514 hrs, *Acanthodactylus erythrurus* in *Cistus crispus* and *Juniperus phoenicea*.

1519 hrs, *Acanthodactylus erythrurus* shot in *Juniperus phoenicea* after being frightened from

*Halimium halimiifolium*.

1526 hrs, *Psammodromus algirus* shot under *Pinus pinea* in area of *Cistus crispus*, *Pistacia*

*lentiscus* (L.), and *Halimium halimiifolium*. ♂ with disjointed tail and has yellow flecks

around limbs, blue behind ear and above front legs. (Breeding colors?)

1531 hrs, *Psammodromus algirus* in sand dunes under *Halimium halimiifolium*.

1543 hrs, *Acanthodactylus erythrurus* shot in *Cistus crispus.*

1547 hrs, *Acanthodactylus erythrurus* shot in *Cistus crispus* and *Juniperus phoenicea*.

1559 hrs, *Psammodromus algirus* in sand, vicinity of *Halimium halimiifolium*.

1602 hrs, *Acanthodactylus erythrurus* shot in *Halimium halimiifolium* and *Cistus crispus*.

1605 hrs, *Acanthodactylus erythrurus* in *Halimium halimiifolium*.

1609 hrs, *Acanthodactylus erythrurus* shot in *Cistus crispus.*

1611 hrs, *Acanthodactylus erythrurus* shot in open area w/ *Halimium halimiifolium*.

1613 hrs, *Acanthodactylus erythrurus* shot in open area w/ unidentified plants, open sand lot

area, dunes evident, vegetation low, and *Pinus pinea* present.

1615 hrs, *Acanthodactylus erythrurus* in *Halimium halimiifolium* area.

1620 hrs, *Acanthodactylus erythrurus* shot in dune area.

1625 hrs, *Acanthodactylus erythrurus* in *Juniperus phoenicea*.

1628 hrs, *Acanthodactylus erythrurus* active in sand dunes.

1632 hrs, *Acanthodactylus erythrurus* in dunes.

1634 hrs, adult *Acanthodactylus erythrurus*

1640 hrs, *Acanthodactylus erythrurus* shot in *Halimium halimiifolium*.

1643 hrs, *Acanthodactylus erythrurus* shot while foraging.

1648 hrs, *Psammodromus algirus* in *Pistacia lentiscus.*

1650 hrs, 25.0°C. END SURVEY.

1705 hrs, *Acanthodactylus erythrurus* on road.

CMFS 18890-18891(CM 53331-53332 ) = *Psammodromus algirus*

CMFS 18892-18905 (CM 53333[14])= *Acanthodactylus erythrurus*

ES 272 (Diptera, Tabanidae), CM accession 24782.

**1970, 19 June, Sanlúcar de Barrameda (N36.77025 W6.34666), C-440**

6.8 mi. SE, 1750 hrs, *Malpolon monspessulanus* A.O.R. but not collected.

**1970, 19 June, Puerto de Santa María (= Valdelagrana, N36.57945 W6.22406)**

1809 hrs-1835 hrs, nothing of interest seen. (First time nothing found.)

*Chamaeleo chamaeleon* CMFS 18907; CM 53335 W.J. Morgan ; coll.

**1970, 20 June,** **Base Naval de Rota, General, (~N 36.627812 W6.331415)**

*Epidalea calamita* (CMFS 18906; CM 53334). Collected by E. Rubinoski.

**1970, 21 June, Puerto de Santa María (= Valdelagrana, N36.57945 W6.22406)**

*Pelobates cultripes*, (CMFS 18908-18909; CM 53336-53337). Maxwell collecrtion.

**1970, 21 June, Rota (N36.62899 W6.35430)-Chipiona (N36.70769 W6.41560) Road**

Maxwell reports a *Timon lepidus* D.O.R. on this road this afternoon. Mid-day temperatures in low 15°C range.

**1970, 23 June, Base Naval de Rota (=Benchmark) (~N36.637383, W6.346438, 20 m)**

*Natrix maura*, (CMFS 18910; **CM 53338**). Anonymous donation.

ES 273 (Coleoptera, Scarabaeidae, Leaf chafer) CM accession 24782

**1970, 24 June, Jerez de la Frontera-Arcos de la Frontera-Bornos-Villamartín-Puerto Serrano-Algodonales-Zahara-Grazalema-Benaocaz-El Bosque-Arcos de la Frontera**

1800 hrs-2400 hrs, 27.8°C-22.2°C, RH 46% at start.

**1970, 24 June, Arcos de la Frontera (N36.75559 W5.82017), N-342**

5.1 mi. ENE, *Malpolon monspessulanus* D.O.R..

**1970, 24 June, Bornos (N36.81854 W5.74740), N-342**

4.8 mi. ENE, *Malpolon monspessulanus* D.O.R..

**1970, 24 June, El Bosque** (**N36.75819 W5.50904), CA-524**

6.8 mi. SSE, 2216 hrs, 22.2°C, centipede (ES 274, unidentified) collected.

**1970, 24 June, El Bosque** (**N36.75819 W5.50904), C-344**

3.8 mi. W, *Pelophylax perezi* D.O.R..

**1970, 24 June, Arcos de la Frontera (N36.75559 W5.82017), N-342**

0.5 mi. ESE, 2325 hrs, 23.3°C, *Hemorrhois hippocrepis* (CMFS 18911; CM 53339) fresh D.O.R., eastern edge of town.

**1970, 25 June, Jerez de la Frontera-El Portal-Puerto Real-Puerto de Santa María**

2000 hrs-2330 hrs, 22.2°C.

**1970, 25 June, El Portal (N36.65116 W6.12771), CA-201**

0.4 mi. SE, 2117 hrs, 21.7°C, *Tarentola mauritanica* on a steel-concrete bridge (~N36.63276

W6.13674).

1.8 mi. SE, 2125 hrs, 22.2°C, 3 “Little Owls” A.O.R..

**1970, 25 June, Jerez de la Frontera (Cartuja de Santa María de la Defenó), to SE**

**(N36.65556 W6.09378), C-440 (1969-1972)**

6.7-6.9 mi. SE, 2135 hrs-2144 hrs (19.4°C), 3 *Pelophylax perezi* (CMFS 18912-18914;

CM 53340-53342) collected A.O.R..

8.4 mi. SE, 2250 hrs, 18.3°C, *Pelobates cultripes* (CMFS 18915; CM 53343) found A.O.R..

**1970, 25 June, Puerto Real, from N-IV at ~N36.53761 W6.16818 to C-440 via A-408**

12.0 mi. E, large (~.75 m) *Rhinechis scalaris* D.O.R., but too dry and flattened to save.

11.2 mi. E, (~1- 1.2 m) *Rhinechis scalaris* D.O.R..

10.2 mi. E, *Pelobates cultripes* (CMFS 18916-18917; CM 53344-53345)taken.

9.3 mi. E, 2234 hrs, 22.2°C, *Pelobates cultripes* (CMFS 18916-18917; CM 53344-53345) A.O.R..

6.5 mi. E, 2245 hrs, 22.2°C, snake (probably *Rhinechis scalaris*) A.O.R. but not positive.

5.2 mi. E, *Malpolon monspessulanus* D.O.R..

5.1 mi. E, juvenile *Malpolon* *monspessulanus* D.O.R..

4.3 mi. E, *Malpolon* *monspessulanus* D.O.R..

**1970, 27 June, Puerto de Santa María-Chiclana de la Frontera-Vejer de la Frontera-Punta Paloma (located on shoreline close to Tarifa)-Tarifa-Puerto del Cabrito (4.6 mi. NE of Tarifa)-Algeciras-Los Barrios-Casas del Castaño-Alcalá de los Gazules-Puerto Real**

1211 hrs-2020 hrs, 23.9°C, overcast and partly sunny.

**1970, 27 June, Vejer de la Frontera (N36.26089 W5.96476), N-340**

7.5 mi. ESE, *Hemorrhois hippocrepis* D.O.R..

**1970, 27 June, Punta Paloma, A-2325, (~N36.06284 W5.71259, 43 m)**

1410 hrs-1540 hrs

1420 hrs, *Acanthodactylus erythrurus* shot under *Pinus pinea* in open sand area.

1422 hrs, *Psammodromus algirus*(CMFS 18933, CM 53347) shot in area of *Pinus pinea* and *Lygos monosperma*.

1427 hrs, *Acanthodactylus erythrurus* shot in *Pinus pinea* area.

1431 hrs, *Acanthodactylus erythrurus* shot in sand under *Pinus pinea* .

1434 hrs, *Acanthodactylus erythrurus* shot in pine needles under *Pinus pinea* .

1435 hrs, *Acanthodactylus erythrurus* shot in *Pinus pinea* and *Lygos monosperma*.

1440 hrs, *Acanthodactylus erythrurus* shot under *Pinus pinea* in sand (hard-packed sand).

1445 hrs, *Acanthodactylus erythrurus* shot under *Lygos monosperma* and another specimen.

1448 hrs, 2 *Acanthodactylus erythrurus*, one in *Pinus pinea* and one in *Lygos monosperma.*

1449 hrs, rabbit (*Lepus*?).

1452 hrs, *Acanthodactylus erythrurus* shot in sand near *Senecio jacobaea* L.

1459 hrs-1500 hrs, 2 *Acanthodactylus erythrurus* shot, one in *Senecio jacobaea* L. and one in

*Pinus pinea* and *Lygos monosperma* area.

1502 hrs, *Acanthodactylus erythrurus* shot under *Lygos monosperma*.

1509 hrs, *Acanthodactylus erythrurus* shot under *Pinus pinea*.

1518 hrs, *Acanthodactylus erythrurus* shot in *Pinus pinea* and *Lygos monosperma*.

1521 hrs, *Acanthodactylus erythrurus*, not collected.

**1970, 27 June, Punta Paloma, A-2325, (~N36.06284 W5.71259, 43 m) -2-**

1523 hrs, *Acanthodactylus erythrurus* shot in *Pinus pinea*.

1526 hrs, *Acanthodactylus erythrurus* shot in *Pinus pinea* and another specimen seen.

1533 hrs, *Acanthodactylus erythrurus* in *Pinus pinea* but not collected.

1540 hrs, 27.2°C END.

*Acanthodactylus erythrurus* = CMFS 18918-18932 (CM 53346[15]).

**1970, 27 June, Puerto del Cabrito (~N36.04086 W5.56835)**

2.3 mi. NNW, N-340, *Bufo spinosus* D.O.R..

4.7 mi. NNW in Sierra de Luna area, 1633 hrs, 27.8°C, 2 *Psammodromus algirus*, 1 *Tarentola*

*mauritanica* active in area with *Quercus suber* and *Chamaerops humilis*. The

*Psammodromus algirus* were observed active in heavy shrubbery in area of *Quercus*

*suber* but were too fast to be taken. The *Tarentola mauritanica* (CMFS 18934; CM

53348) was taken at 1653 hrs, from the sun-soaked side of a piece of granite.

**1970, 27 June, Algeciras (N36.12751 W5.44806), N-340**

5.3 mi. SW, *Malpolon monspessulanus* D.O.R..

**1970, 27 June, Casas del Castaño (N36.30792 W5.59662), C-440**

7.6 mi. S, 1840 hrs, 26.7°C, subadult *Timon lepidus* A.O.R..

**1970, 27 June, Alcalá de los Gazules (N36.43994 W5.71962), C-440**

3.7 mi. SE, 1846 hrs, 25.6°C, *Timon lepidus* A.O.R..

**1970, 27 June, Alcalá de los Gazules, (N36.44084 W5.72006), C-440**

1.7 mi. WNW, *Timon lepidus* D.O.R..

11.4 mi. W, *Rhinechis scalaris*

**1970, 27 June, Puerto Real, from N-IV at ~N36.53761 W6.16818 to C-440 via A-408**

11.9 mi. E, 1934 hrs, 25.6°C, *Timon lepidus* fresh D.O.R..

**1970, 28 June, La Algaida (N36.862136 W6.302683)**

0530 hrs, 15.6°C; 0634 hrs, 13.9°C to 1341 hrs, 27.8°C

*Acanthodactylus erythrurus* (CMFS 18936-18949; CM 53350[14])

*Psammodromus algirus* (CMFS 18950-18952; CM 53351-53353)

0719 hrs, *Psammodromus algirus* sunning.

0734 hrs, 17.8°C.

0736 hrs, *Psammodromus algirus* shot in *Myrtus communis*.

0754 hrs, *Psammodromus algirus* in *Juniperus phoenicea*.

0807 hrs, 2 *Psammodromus algirus* in depression in sand and later in *Juniperus phoenicea*.

0812 hrs, *Acanthodactylus erythrurus* shot.

0813 hrs, 21.7°C.

0823 hrs, *Acanthodactylus erythrurus*

0827 hrs, 2 *Psammodromus algirus* captured in *Pinus pinea* and *Juniperus phoenicea*.

0831 hrs, *Acanthodactylus erythrurus* sunning in open sand vicinity of unidentified bushes.

0833 hrs, *Acanthodactylus erythrurus* shot while sunning under unidentified bush.

**1970, 28 June, La Algaida (N36.862136 W6.302683) -2-**

0835 hrs, 23.9°C.

0837 hrs, *Acanthodactylus erythrurus* shot while sunning.

0841 hrs, *Acanthodactylus erythrurus* shot under *Juniperus phoenicea* while sunning.

0844 hrs, *Acanthodactylus erythrurus* shot while sunning in open sand.

0844 hrs, 2 *Psammodromus algirus* active in *Juncus acutus*.

0848 hrs, 2 *Psammodromus algirus*

0850 hrs, *Acanthodactylus erythrurus* shot while sunning.

0855 hrs, *Acanthodactylus erythrurus* shot while sunning in *Halimium halimiifolium.*

0856 hrs, *Acanthodactylus erythrurus* in *Juniperus phoenicea*.

0858 hrs, *Acanthodactylus erythrurus* sunning.

0901 hrs, *Acanthodactylus erythrurus* active in *Halimium halimiifolium* area

0905 hrs, *Acanthodactylus erythrurus* in unidentified plant.

0912 hrs, soil temperature 21.1°C at 1.27 cm below ground in shady area.

0914 hrs, *Acanthodactylus erythrurus* shot under *Juniperus phoenicea*.

0918 hrs, *Acanthodactylus erythrurus* moving about in *Halimium halimiifolium* and unidentified

plants.

0921 hrs, *Acanthodactylus erythrurus* in *Juniperus phoenicea* and on sand in shade.

0924 hrs, *Acanthodactylus erythrurus* active in *Halimium halimiifolium* and *Juniperus phoenicea*

area.

0927 hrs, *Acanthodactylus erythrurus* shot in *Halimium halimiifolium* and under outer limits of

*Juniperus phoenicea*.

0930 hrs, Sub-adult::juvenile *Acanthodactylus erythrurus* active in *Juniperus phoenicea*.

0935 hrs, *Psammodromus algirus* in shady area of *Juniperus phoenicea*.

0936 hrs, 25.6°C.

0940 hrs, *Psammodromus algirus* in *Cistus crispus.*

0942 hrs, *Psammodromus algirus* sunning in *Pistacia lentiscus.*

0946 hrs, *Psammodromus algirus* in *Myrtus communis* and *Cistus crispus*

*Acanthodactylus erythrurus* shot in *Cistus crispus, Halimium halimiifolium,* and *Pinus pinea* area.

0951 hrs, 22.8°C, 0954 hrs, 23.3°C.

0955 hrs, *Psammodromus algirus* A.O.R..

1012 hrs, 25.6°C, subadult *Malpolon monspessulanus* (CMFS 18935; CM 53349) collected in

*Cistus crispus* area.

1016 hrs, *Acanthodactylus erythrurus* crossed highway.

NOTE: For a while (1015 hrs-1120 hrs) I cruised the dirt road along the Guadalquivir River Northward. 16 miles N of La Algaida (20 mi. N of Bonanza) I found 1 *Natrix maura* and 40 *Mauremys leprosa* lying dead on the road. The *Mauremys* ranged in size from juvenile to large adult and were so rotted they could not be salvaged. The *Natrix* *maura* was reduced to a skeleton or pretty close to a skeleton. 17 miles N of La Algaida 90 more *Mauremys* *leprosa* and 2 *Natrix* *maura* were found in the same condition. 17.2 miles N 30 *Mauremys leprosa* were found dead. The numbers are actual counts.

1128 hrs, sub-adult *Malpolon monspessulanus* A.O.R.

1128 hrs, *Psammodromus algirus* in *Halimium halimiifolium.*

**1970, 28 June, La Algaida (N36.862136 W6.302683) -3-**

1129 hrs, 2 *Acanthodactylus erythrurus* A.O.R..

1232 hrs, 26.1°C.

1242 hrs, *Acanthodactylus erythrurus* under *Juniperus phoenicea*.

1244 hrs, *Acanthodactylus erythrurus* shot under *Halimium halimiifolium* and *Cistus crispus.*

1249 hrs, *Psammodromus algirus* shot in *Halimium halimiifolium*, *Pinus pinea*, and *Cistus crispus.*

1251 hrs, *Acanthodactylus erythrurus* shot under *Cistus crispus.*

1255 hrs, *Psammodromus algirus* in *Myrtus communis.*

1257 hrs, *Acanthodactylus erythrurus* in *Cistus crispus* area.

1259 hrs, 2 *Acanthodactylus erythrurus* in *Halimium halimiifolium* area.

1301 hrs, *Psammodromus algirus* in *Juniperus phoenicea*.

1312 hrs, *Acanthodactylus erythrurus* in *Halimium halimiifolium* and *Cistus crispus.*

1315 hrs, *Acanthodactylus erythrurus* in *Cistus crispus.*

1319 hrs, *Psammodromus algirus* in *Juniperus phoenicea*-*Pinus pinea* area.

1325 hrs, *Acanthodactylus erythrurus* active.

1326 hrs, *Acanthodactylus erythrurus* in *Cistus crispus.*

1330 hrs, *Acanthodactylus erythrurus* shot in *Halimium halimiifolium* area.

1338 hrs, 27.8°C.

1341 hrs, *Acanthodactylus erythrurus* shot in *Halimium halimiifolium.*

**1970, 1 July, Base Naval de Rota, Horse stables area (N36.632612 W6.319889)**

2200 hrs-2300 hrs, 21.1°C (air).

A series of *Pelophylax perezi* (CMFS 18953-18964; CM 53354[12]) and 3 *Mauremys leprosa*  (CMFS 18965-18967; CM 53355-53357) taken from pond on Base. Several other *Pelophylax* seen along with another *Mauremys*.

**1970, 2 July,** **Base Naval de Rota (Benchmark) (N36.637383, W6.346438, 20 M)**

*Natrix maura* (CMFS 18968, **CM 53358**)HMC, USN L. Kukla,collector**.**

**1970, 3 July, Jerez de la Frontera-La Barca de la Florida-Galis-Jimena de la Frontera-Castellar-Los Barrios-Casas del Castaño-Alcalá de los Gazules-Puerto Real**

0845 hrs-1903 hrs, clear and overcast, 22.2°C.

**1970, 3 July, La Barca de la Florida (N36.63536 W5.88744, 76 m)**

1.8 mi. W, 0925 hrs, 25.6°C, sub-adult *Timon lepidus* A.O.R..

11.7 mi. E, 1004 hrs, 27.8°C, *Timon lepidus* A.O.R..

27.8 mi. E, 1055 hrs, 31.7°C, *Psammodromus algirus* A.O.R..

**1970, 3 July, Galis (N36.55958 W5.60101)**

28.3 mi. E La Barca de la Florida at intersection of road from Ubrique-Jimena de la Frontera.

**Provincia de Málaga**

**1970, 3 July, Galis, C-3331 (N36.55958 W5.60101)**

0.8 mi. E, N36.54936 W5.59631, 1114 hrs, 32.2°C, *Podarcis vaucheri* (CMFS 18972) collected

in bridge abutment.

7.2 mi. E, N36.51936 W5.54536, 1200 hrs-1226 hrs, 30.0°C (air), 31.1°C - 33.3°C (water), a

series of juvenile *Pelophylax perezi* (CMFS 18973; CM 53363) and tadpoles taken.

**1970, 3 July, Jimena de la Frontera, C-3331 (N36.43890 W5.44437, 46 m)**

5.4 mi. NW (**N36.47667 W5.38940, 107 m**), 1338 hrs, 41.1°C - 41.7°C, *Psammodromus algirus* (CMFS 18969; CM 53359) shot.

5.1 mi. NW, N36.46770 W5.49071, 1344 hrs, 41.7°C, *Timon lepidus* (CMFS 18970; CM 53360)

shot.

**Provincia de** **Cádiz**

**1970, 3 July, Jimena de la Frontera, C-3331 (N36.43890 W5.44437, 46 m)**

2.9 mi. NW, N36.45088 W5.47575, 1408 hrs, 40.0°C, *Podarcis vaucheri* (CMFS 18971; CM 53361) taken off stone wall with a rubber band.

**1970, 3 July, Castellar de la Frontera, CA-9201 (N36.31668 W5.45621)**

0.9 mi S, 1520 hrs, 37.8°C, ES 275 (Coleoptera, Cerambycidae, CM Accession 24782)

**1970, 3 July, Los Barrios (N36.18209 W5.48920), C-440 (1969-1972)**

0.5 mi NW, 1554 hrs, 33.3°C, ES 276 (Hymenoptera, Sphecidae, *Sceliphron* sp, CM Accession

24782)

6.1 mi. NW, *Hemorrhois hippocrepis* D.O.R..

7.6 mi. NW, 1650 hrs, 35.6°C, *Psammodromus algirus* A.O.R..

**1970, 3 July, Alcalá de los Gazules (N36.44084 W5.72006), C-440**

12.4 mi. W, *Rhinechis scalaris* D.O.R..

14.9 mi. W, 1820 hrs, 31.1°C, *Timon lepidus* A.O.R..

**1970, 3 July, Puerto Real, from N-IV at ~N36.53761 W6.16818 to C-440 via A-408**

6.4 mi. E, *Rhinechis scalaris* D.O.R..

1.3 mi. E, 1825 hrs, 27.8°C, *Timon lepidus* D.O.R..

2.9 mi. NW, 1903 hrs, *Malpolon monspessulanus* D.O.R..

**1970, 7 July, Base Naval de Rota, Horse stables area (N36.632612 W6.319889)**

2340 hrs-2400 hrs, 21.1°C

*Mauremys leprosa*  (CMFS 18984; CM 53367) taken from pond while it was foraging. Nothing else seen and 2-3 *Pelophylax* *perezi* heard calling.

**1970, 16 July, Jerez de la Frontera-Jédula-Arcos de la Frontera-El Bosque-Benamahoma-Zahara de la Sierra-Málaga Province-Ronda-San Pedro de Alcántra-Estepona-Cádiz Province-Sotogrande-La Linea-Algeciras-Tarifa-Vejer de la Frontera-Chiclana de la Frontera**

**1970, 16 July, Benamahoma, (N36.75918 W5.46425), C -344**

*Rhinechis scalaris* on rock wall on E edge of town.

0.9 mi. S, 1042 hrs, approx. 26.7°C, 2 *Podarcis vaucheri* observed on a stone bridge.

1.0 mi. S, 1045 hrs, 27.8°C, *Timon lepidus* (CMFS 18987; **CM 53370**) collected.

1.6 mi. S and E (**C-344 [=A-372], N36.75097 W5.45189, 696 M**), 1100 hrs-1130 hrs, 38.3°C, *Natrix maura* (CMFS 18988; **CM 53371**), 2 *Timon lepidus* seen; *Pelophylax perezi* seen in fresh-circulated water pond.

5.5 mi. E, 1251 hrs, 31.1°C, *Podarcis vaucheri* (CMFS 18986; **CM 53369**) collected and one

specimen observed.

**1970, 16 July, Vejer de la Frontera (N36.26089 W5.96476), N-340**

14.2 mi. SE, *Hemorrhois hippocrepis* D.O.R., unsuitable for preservation.

**1970, 16 July, Trebujena, (N36.86862 W6.17539)**

5.1 mi SSE, 74, ES 277, Buthidae, *Buthus occitanus*.

**1970, 19 July, Rota-Sanlúcar-La Algaida**

0711 hrs-1415 hrs; 16.1°C at 0711 hrs

**1970, 19 July, La Algaida (N36.862136 W6.302683)**

0755 hrs, *Psammodromus algirus* active in *Juniperus phoenicea*.

0815 hrs, *Psammodromus algirus* shot in open area of *Cistus crispus.*

0819 hrs, *Psammodromus algirus* shot in sand under *Pistacia lentiscus.*

0821 hrs, 23.9°C.

0827 hrs, *Psammodromus algirus* in *Pistacia lentiscus.*

0831 hrs, *Psammodromus algirus* in *Pistacia lentiscus.*

0833 hrs, *Timon lepidus* in *Halimium halimiifolium.*

0851 hrs, *Acanthodactylus erythrurus* shot under *Corema album*.

0855 hrs, *Acanthodactylus erythrurus* in *Juniperus phoenicea*.

0857 hrs, *Acanthodactylus erythrurus* shot under *Juniperus phoenicea* area.

0859 hrs, *Acanthodactylus erythrurus* under *Juniperus phoenicea*.

0905 hrs, 2 *Acanthodactylus erythrurus* in sand.

0910 hrs, 1 *Acanthodactylus erythrurus* shot in *Corema album*.

0916 hrs, *Psammodromus algirus* shot in open sand in vic. of *Halimium halimiifolium.*

0919 hrs, *Acanthodactylus erythrurus* in *Juniperus phoenicea*.

0922 hrs, 3 *Acanthodactylus erythrurus* in open sand area and 1 shot.

0924 hrs, 2 *Acanthodactylus erythrurus* in open sand.

0931 hrs, *Acanthodactylus erythrurus* shot in *Juniperus phoenicea*.

0936 hrs, *Acanthodactylus erythrurus* shot under *Juniperus phoenicea* and another seen.

0939 hrs, *Acanthodactylus erythrurus* shot in sand vic. *Juniperus phoenicea*.

0943 hrs, *Acanthodactylus erythrurus* shot under *Corema album*.

0951 hrs, *Acanthodactylus erythrurus* shot in *Halimium halimiifolium.*

0952 hrs, *Acanthodactylus erythrurus* in *Juniperus phoenicea*.

0954 hrs, *Acanthodactylus erythrurus* in *Juniperus phoenicea*.

0955 hrs, *Acanthodactylus erythrurus* shot in *Juniperus phoenicea*.

**1970, 19 July, La Algaida (N36.862136 W6.302683) -2-**

0958 hrs, 2 *Acanthodactylus erythrurus* in *Juniperus phoenicea*.

0959 hrs, 2 *Acanthodactylus erythrurus* in *Juniperus phoenicea*.

1006 hrs, *Psammodromus algirus* in *Juniperus phoenicea*.

1006 hrs, *Acanthodactylus erythrurus* in *Juniperus phoenicea*.

1010 hrs, *Acanthodactylus erythrurus* shot in open sand.

1012 hrs, *Acanthodactylus erythrurus* shot in open shade vic. *Halimium halimiifolium* under

*Pinus pinea.*

1017 hrs, *Acanthodactylus erythrurus* in *Halimium halimiifolium*, subsequently ran to *Juniperus*

*phoenicea*-*Cistus crispus.*

1030 hrs, *Acanthodactylus erythrurus* in *Juniperus phoenicea*/*Cistus crispus* area.

1034 hrs, *Psammodromus algirus* in *Pistacia lentiscus.*

1049 hrs, *Acanthodactylus erythrurus* shot in *Halimium halimiifolium.*

1110 hrs, 29.4°C. [1100 hrs-1150 hrs, lunch.]

1155 hrs, 30.6°C.

1202 hrs, *Acanthodactylus erythrurus* in *Myrtus communis.*

1206 hrs, *Acanthodactylus erythrurus* shot in open sand.

1209 hrs, *Psammodromus algirus* in *Cistus crispus.*

1211 hrs, *Acanthodactylus erythrurus* in area of *Myrtus communis* and *Pistacia lentiscus.*

1217 hrs, *Acanthodactylus erythrurus* in *Halimium halimiifolium* area.

1221 hrs, *Acanthodactylus erythrurus* shot in *Myrtus communis.*

1225 hrs, *Acanthodactylus erythrurus* in *Halimium halimiifolium…*

1230 hrs, *Psammodromus algirus* in *Juniperus phoenicea*.

1239 hrs, *Acanthodactylus erythrurus* in open sand.

1240 hrs, juvenile *Acanthodactylus erythrurus* in open sand.

1243 hrs, *Acanthodactylus erythrurus* shot while in open sand.

1256 hrs, *Acanthodactylus erythrurus* shot in area of *Halimium halimiifolium*/*Cistus crispus* in

shade of *Pinus pinea.*

1259 hrs, *Acanthodactylus erythrurus* shot under *Cistus crispus* in *Juniperus phoenicea* area.

1304 hrs, *Acanthodactylus erythrurus* shot in *Cistus crispus.*

1307 hrs, *Acanthodactylus erythrurus* in open shade of pine (*Pinus pinea*) needles.

1310 hrs, *Acanthodactylus erythrurus* shot in *Cistus crispus*, *Pistacia lentiscus* area.

1315 hrs, *Acanthodactylus erythrurus* shot in *Pistacia lentiscus* area.

1330 hrs, END, 1345 hrs, 29.4°C.

*Acanthodactylus erythrurus* (CMFS 18990-19010; CM 53373[21]).

*Psammodromus algirus* (CMFS 19011-19014; CM 53374-53377).

**1970, 21 July, Rota-Chipiona-Sanlúcar-La Algaida-Puerto Santa María-Puerto Real-Rota** 1745 hrs-2320 hrs.

**1970, 21 July, La Algaida (N36.862136 W6.302683)**

1850 hrs, 25.6°C, *Psammodromus algirus*

1855 hrs, Begin.

1859 hrs, *Psammodromus algirus* shot under *Pinus pinea.*

1903 hrs, *Psammodromus algirus* in *Pistacia lentiscus.*

**1970, 21 July, La Algaida (N36.862136 W6.302683) -2-**

1906 hrs, *Psammodromus algirus* in *Cistus crispus.*

1925 hrs, *Acanthodactylus erythrurus* shot in *Halimium halimiifolium.*

1959 hrs, END; 2010, 22.2°C.

*Acanthodactylus erythrurus* (CMFS 19015; CM 53378)

*Psammodromus algirus* (CMFS 19016; CM 53379)

**1970, 21 July, Puerto Real from N-IV at ~N36.53761 W6.16818 to C-440 via A-408**

6.2 mi. E, 2200 hrs, 18.9°C, *Hyla meridionalis* (CMFS 19017; CM 53380).

6.5 mi. E, *Hemorrhois hippocrepis* D.O.R..

7.3 mi. E, 2219 hrs, 20.0°C, *Pelophylax perezi* (CMFS 19018; CM 53381) collected.

**1970, 24 July, Rota-Chipiona-Sanlúcar- La Algaida- Puerto de Santa María-Chiclana de la Frontera-Vejer de la Frontera-Tarifa-Algeciras-Los Barrios**

1230 hrs-2400 hrs.

**1970, 24 July, La Algaida (N36.862136 W6.302683)**

1338 hrs, 32.8°C.

1346 hrs, *Acanthodactylus erythrurus* shot in *Halimium halimiifolium* and *Cistus crispus.*

1350 hrs, *Acanthodactylus erythrurus* shot in *Halimium halimiifolium*, *Cistus crispus* area in

shade.

1355 hrs, *Acanthodactylus erythrurus* in *Juniperus phoenicea*.

1357 hrs, *Psammodromus algirus* shot in *Cistus crispus* and *Halimium halimiifolium* area.

1425 hrs, *Acanthodactylus erythrurus* in *Corema album* (L.).

1427 hrs, *Acanthodactylus erythrurus* shot in *Juniperus phoenicea*.

1443 hrs, *Acanthodactylus erythrurus* in *Halimium halimiifolium.*

1445 hrs, 3 *Acanthodactylus erythrurus* in area of *Chamaerops humilis*, *Cistus crispus*,

*Halimium halimiifolium*, and *Juniperus phoenicea*.

1446 hrs, *Acanthodactylus erythrurus* shot in *Pistacia lentiscus.*

1456 hrs, *Acanthodactylus erythrurus* shot in road vic. *Pistacia lentiscus.*

1459 hrs, *Acanthodactylus erythrurus* shot under *Juniperus phoenicea* L.

1508 hrs-1544 hrs (36 minutes) , break for dinner.

1514 hrs, 33.3°C.

1536 hrs, ES 278 (Diptera, Muscoidea, CM accession 24782) & ES 279( Heteroptera,

Coreidae), CM accession 24782.

1554 hrs, *Psammodromus algirus* in *Juniperus phoenicea* like bush.

1601 hrs, *Acanthodactylus erythrurus* shot in *Juniperus phoenicea* like area.

1604 hrs, *Acanthodactylus erythrurus* in *Juniperus phoenicea*.

1608 hrs, *Psammodromus algirus* in *Cistus crispus*/*Halimium halimiifolium.*

1614 hrs, 2 *Acanthodactylus erythrurus* in *Juniperus phoenicea*.

1617 hrs, *Acanthodactylus erythrurus* shot in *Pistacia lentiscus.*

1621 hrs, *Acanthodactylus erythrurus* active around log in sun; later escaped into *Juniperus*

*phoenicea* area.

1641 hrs, 2 *Acanthodactylus erythrurus* in *Juniperus phoenicea*.

1652 hrs, *Acanthodactylus erythrurus* shot in *Cistus crispus* and *Halimium halimiifolium.*

1659 hrs, *Acanthodactylus erythrurus* under young *Pinus pinea.*

**1970, 24 July, La Algaida (N36.862136 W6.302683) -2-**

1708 hrs, 31.7°C.

1728 hrs, *Acanthodactylus erythrurus* in *Halimium halimiifolium.*

1740 hrs, *Acanthodactylus erythrurus* shot in *Juniperus phoenicea* area, another seen**.**

1744 hrs, *Acanthodactylus erythrurus* going into *Juniperus phoenicea*.

1748 hrs, *Acanthodactylus erythrurus* shot under *Juniperus phoenicea*.

1755 hrs, juvenile *Acanthodactylus erythrurus* shot.

1805 hrs, *Acanthodactylus erythrurus* shot in open sand and another seen in *Juniperus phoenicea*.

1810 hrs, *Acanthodactylus erythrurus* shot in *Halimium halimiifolium*, *Cistus crispus* and

*Juniperus phoenicea* area.

1814 hrs, *Acanthodactylus erythrurus* in unidentified plant area.

1816 hrs, *Acanthodactylus erythrurus* shot under *Juniperus phoenicea*.

1818 hrs, *Acanthodactylus erythrurus* shot while sunning in sand. Head up with chin angled to

sun; right side of body to sun. (line drawing on p. 80 not useful)

1821 hrs, 2 *Acanthodactylus erythrurus* in an area of *Pinus pinea* and *Juniperus phoenicea* with

*Corema album*.

1825 hrs, *Acanthodactylus erythrurus* sunning with chin parallel to sun’s rays.

1826 hrs, *Acanthodactylus erythrurus* in *Corema album*.

1832 hrs, *Acanthodactylus erythrurus* in *Corema album*.

1835 hrs, newborn *Acanthodactylus erythrurus*

1839 hrs, *Acanthodactylus erythrurus* shot in *Corema album*

1839 hrs, *Psammodromus algirus* seen in *Juniperus phoenicea*.

1842 hrs, *Acanthodactylus erythrurus* shot while sunning.

1844 hrs, *Acanthodactylus erythrurus* in *Juniperus phoenicea*.

1853 hrs, *Acanthodactylus erythrurus* in *Juniperus phoenicea* after being in sunny area.

1855 hrs-1857 hrs, *Psammodromus algirus* in *Juniperus phoenicea*.

1911 hrs, 27.2°C, END.

One *Acanthodactylus erythrurus* in ecdysis.

*Acanthodactylus erythrurus* (CMFS 19020-19037; CM 53383[18])

*Psammodromus algirus* (CMFS 19019; CM 53382)

**1970, 25 July, Los Barrios-Benalup de Sidonia-Algeciras-Tarifa-Vejer de la Frontera-Chiclana de la Frontera-Puerto Real**

0845 hrs-1800 hrs

**1970, 25 July, Los Barrios (N36.18209 W5.48920), C-440 (1969-1972)**

11.7 mi. NW on C-440, 0907 hrs, 26.7°C, *Timon lepidus* A.O.R..

**1970, 25 July, Intersection C-440 to Benalup de Sidonia via Cueva del Tajo de las Figuras (Cueva del Arco) CA-212 (A-2226) (N36.29977 W5.59444)**

0.4 mi. W (**A-2226, N36.30046 W5.59998, 153 M**), 0925 hrs, 26.7°C, *Natrix maura* (CMFS 19045; **CM 53391**) shot in a small pond beneath a bridge where *Pelophylax perezi* were also observed.

0.9 mi. W, 0956 hrs, 27.8°C, adult *Tarentola mauritanica* on a stone culvert.

3.0 mi. W, 1025 hrs, 29.4°C, in an area which is primarily low montane with *Pistacia lentiscus*

**1970, 25 July, Intersection C-440 to Benalup de Sidonia via Cueva del Tajo de las Figuras (Cueva del Arco) CA-212 (A-2226) (N36.29977 W5.59444) -2-**

the prevalent small plant and *Quercus suber* the dominant tree, several annual grasses

provide land cover. 2 *Pelophylax perezi* (CMFS 19038-19039; CM 53384-53385),

*Mauremys leprosa*  (CMFS 19040; CM 53386) collected.

3.8 mi. W (N36.31069 W5.65170, 157 m), 1055 hrs, 29.4°C, *Psammodromus algirus* (CMFS 19042; CM 53388) shot, 8 *Mauremys leprosa*, several *Pelophylax perezi*, one *Tarentola mauritanica*

7.6 mi. W (N36.30472 W5.71069, 54 m), 1130 hrs, 36.7°C, *Psammodromus algirus* (CMFS 19043; CM 53389) shot under wall of a stone bridge.

8.4 mi. W, 1130 hrs, 32.2°C, *Tarentola mauritanica* (CMFS 19044; CM 53390) shot from a

stone retaining wall.

8.5 mi. W, 1144 hrs, 36.7°C, *Timon lepidus* in a drainage hole of a retaining wall.

3.9 mi. W, 1310 hrs, 36.7°C, large *Mauremys leprosa*  (CMFS 19041; CM 53387) captured in a

shallow clear pond where *Pelophylax perezi* were also much in evidence.

**1970, 25 July, Tarifa,** 4.6 mi. NE (N-340) and 4.3 mi. NW (CA-2215) **(N36.09655 W5.56322)**, 1530 hrs-1600 hrs, 37.8°C (air), 21.1°C (water), 371 m, series of 47 *Hyla meridionalis* (CMFS

19046; CM 53392) tadpoles collected in a small, rapidly flowing, pool fed from a

waterfall (Arroyo Río de Los Molinos). Tadpoles were clinging to alga attached to rocks

which formed basin for pool.

**1970, 25 July, Vejer de la Frontera (N36.26089 W5.96476), N-340**

7.1 mi. SE, *Malpolon monspessulanus* D.O.R..

**1970, 26 July, Puerto de Santa María-Puerto Real-Chiclana de la Frontera-Vejer de la Frontera-Cortijada de Navero-Medina Sidonia-Puerto Real**

0817 hrs-1230 hrs

**1970, 26 July, Cortijada de Navero (N36.35793 W5.97758), CA-2021**

4.3 mi. N, *Malpolon monspessulanus* D.O.R..

**1970, 26 July, Medina Sidonia (N36.48538 W5.90893), C-440**

3.0 mi. WNW, 1134 hrs, 30.0°C, young *Timon lepidus* A.O.R..

**1970, 26 July, Puerto Real from N-IV at ~N36.53761 W6.16818 to C-440 via A-408**

9.8 mi. E, sub-adult *Malpolon monspessulanus* D.O.R..

7.7 mi. E, 31.1°C, juvenile *Natrix maura* freshly D.O.R..

**1970, 31 July, Puerto de Santa María (= Valdelagrana, N36.57945 W6.22406)**

*Chamaeleo chamaeleon* (CMFS 19047; CM 53393) Donated by W. J. Morgan.

**1970, August (unspecific date), Rota vicinity** Maxwell collection.

*Chamaeleo chamaeleon* (CMFS 19411; CM 54259). Kept in captivity, received in emaciated condition, euthanized and preserved 21 November 1970.

**1970, 1 August, Base Naval de Rota, General, (~N 36.627812 W6.331415)**

ES 280 Fantail warbler (?) G. W. Gibbins, CDR, USN, Donation.

**1970, 4 August, Rota (N36.62899 W6.35430)-Chipiona (N36.70769 W6.41560) Road**

*Malpolon monspessulanus* D.O.R. (CMFS 19048;) CM 53394). O.J. Mirelez, collector.

**1970, 6 August, Rota-Puerto de Santa María-Puerto Real-Jerez de la Frontera-Rota (Naval Base)**

1825 hrs-2239 hrs.

**1970, 6 August, Puerto de Santa María (= Valdelagrana, N36.57945 W6.22406)**

1825 hrs-1943 hrs, at 1848 hrs, 28.3°C, small spider (ES 281, unidentified) collected.

**1970, 6 August, Jerez de la Frontera (Cartuja de Santa María de la Defenó), to SE**

**(N36.65556 W6.09378), C-440 (1969-1972)**

11.1 mi. E on C-440, *Hemorrhois hippocrepis* D.O.R. but not collected.

**1970, 6 August, Jerez de la Frontera (Cartuja de Santa María de la Defenó), to SE**

**(N36.65556 W6.09378), C-440 (1969-1972) -2-**

5.8 mi. E on C-440, 2047 hrs, 22.2°C, *Malpolon monspessulanus* D.O.R.. The specimen was about 1 m in length and was lying next to D.O.R. *Rattus*. It could not be determined at the time whether the *Rattus* had been ingested and expelled by the shock of the vehicle or whether its occurrence was merely coincidental. The *Malpolon* body was severely

damaged and expulsion of stomach contents is not completely out of the question.

**1970, 6 August, Base Naval de Rota, Vicinity of Stables (N36.632612 W6.319889)**

2150 hrs-2239 hrs, 22.2°C-19.4°C, several *Pelophylax perezi* heard calling and the ♂♂ have

fully developed vocal sacs. 2 *Mauremys leprosa*  seen but only one was collected

(CMFS19058; CM 53396). A series of *Pelophylax perezi* (CMFS 19049-19057; CM 53395[9]) was taken. *Juncus acutus* is the predominant plant in the area of three small ponds. Two of these ponds are completely open with *Juncus* at only one end.

**1970, 8 August, Rota-Chipiona-Sanlúcar-Bonanza (La Algaida)**

1345 hrs-1917 hrs

**La Algaida (N36.862136 W6.302683)**

1445 hrs, 34.4°C.

1557 hrs, adult *Acanthodactylus erythrurus* shot in area of *Halimium halimiifolium*, *Cistus*

*crispus*, *Juniperus phoenicea*, *Pinus pinea*, *Pistacia lentiscus*.

1606 hrs, 33.3°C.

1645 hrs, *Psammodromus algirus* in plant (large white berries, *Corema album* [L])(ES 282).

1649 hrs, *Acanthodactylus erythrurus* shot in *Halimium halimiifolium.*

1712 hrs, *Acanthodactylus erythrurus* shot in *Cistus crispus.*

1725 hrs, 32.2°C.

1744 hrs, sub-adult *Acanthodactylus erythrurus* active in *Corema album*.

**1970, 8 August** **La Algaida (N36.862136 W6.302683) -2-**

1759 hrs, *Acanthodactylus erythrurus* under *Juniperus phoenicea* in area of *Halimium*

*halimiifolium.*

1805 hrs, *Acanthodactylus erythrurus* shot in *Corema album*.

1809 hrs, juvenile *Acanthodactylus erythrurus* shot while active in sand.

1814 hrs, juvenile *Acanthodactylus erythrurus* shot while active in around *Corema album.*

1817 hrs, juvenile *Acanthodactylus erythrurus* in *Juniperus phoenicea*.

1821 hrs, adult *Acanthodactylus erythrurus* collected in sand hole vic. *Corema album*.

1823 hrs, juvenile *Acanthodactylus erythrurus* in vic. of *Corema album*.

1833 hrs, adult *Acanthodactylus erythrurus* while travelling thru open sand.

1835 hrs, young adult *Acanthodactylus erythrurus* shot under *Corema album.*

1838 hrs, juvenile *Acanthodactylus erythrurus* under *Corema album.*

1841 hrs, adult *Acanthodactylus erythrurus* in *Corema album.*

1844 hrs, juvenile *Acanthodactylus erythrurus* shot in *Juniperus phoenicea*.

1850 hrs, juvenile *Acanthodactylus erythrurus* shot in *Juncus albus*.

1852 hrs, adult *Acanthodactylus erythrurus* in *Corema album.*

1853 hrs, young adult *Acanthodactylus erythrurus* shot vic. *Corema album.*

1904 hrs, sub-adult *Acanthodactylus erythrurus* under *Juniperus phoenicea*/*Cistus crispus.*

1917 hrs, 2 *Psammodromus algirus* active.

1918 hrs, 28.3°C, END.

*Acanthodactylus erythrurus* = CMFS 19059-19070; CM 53397[30]

**1970, 9 August, La Algaida (N36.862136 W6.302683)**

0700 hrs-1500 hrs

0700 hrs, 16.7°C.

0747 hrs, young adult *Psammodromus algirus* shot in *Halimium halimiifolium*.

0755 hrs, 19.4°C.

0802 hrs, 2 *Psammodromus algirus* in *Pistacia lentiscus.*

0809 hrs, *Psammodromus algirus* shot under *Halimium halimiifolium.*

0830 hrs, *Psammodromus algirus* shot in *Juniperus phoenicea*.

0836 hrs, *Psammodromus algirus* in *Corema album.*

0843 hrs, juvenile *Acanthodactylus erythrurus* shot in *Corema album*.

0845 hrs, juvenile *Acanthodactylus erythrurus* in *Corema album.*

0849 hrs, *Psammodromus algirus* in *Juniperus phoenicea*.

0859 hrs, *Acanthodactylus erythrurus* shot in vic. of *Cistus crispus*, *Pistacia lentiscus*, and

*Juniperus phoenicea*.

0908 hrs, *Acanthodactylus erythrurus* observed and one shot in vic. of *Halimium halimiifolium.*

0910 hrs, adult *Acanthodactylus erythrurus* in *Halimium halimiifolium.*

0912 hrs, juvenile *Acanthodactylus erythrurus* shot in open area.

0922 hrs, 23.3°C.

0925 hrs, adult *Psammodromus algirus* shot in *Halimium halimiifolium* and *Cistus crispus* area.

0928 hrs, *Psammodromus algirus* shot in *Cistus crispus.*

0941 hrs, sub-adult or young adult *Acanthodactylus erythrurus* shot in *Halimium halimiifolium*.

0947 hrs, adult *Acanthodactylus erythrurus* in *Corema album.*

0954 hrs, young *Acanthodactylus erythrurus* in *Corema album.*

0957 hrs, *Acanthodactylus erythrurus* shot while sunning under *Corema album.*

**1970, 9 August, La Algaida (N36.862136 W6.302683) -2-**

0959 hrs, *Psammodromus algirus* shot in *Corema album.*

1001 hrs, *Acanthodactylus erythrurus* shot while sunning in vic. of *Corema album.*

1004 hrs, juvenile *Acanthodactylus erythrurus* in area of *Corema album.*

1005 hrs, young *Acanthodactylus erythrurus* in area of *Corema album.*

1009 hrs, *Acanthodactylus erythrurus* in area of *Corema album.*

1014 hrs, *Acanthodactylus erythrurus* under *Corema album.*

1015 hrs, juvenile *Acanthodactylus erythrurus* in open sand.

1018 hrs, young adult *Acanthodactylus erythrurus* shot while sunning in *Halimium halimiifolium*

area.

1021 hrs, *Acanthodactylus erythrurus* in *Juniperus phoenicea*.

1023 hrs, juvenile *Acanthodactylus erythrurus* in *Corema album*.

1026 hrs, sub-adult *Acanthodactylus erythrurus* in *Juniperus phoenicea*.

1031 hrs, juvenile *Acanthodactylus erythrurus* shot while active between plants of *Corema*

*album.*

1033 hrs, juvenile *Acanthodactylus erythrurus* in *Corema album.*

1039 hrs, sub-adult *Acanthodactylus erythrurus* in *Corema album.*

1040 hrs, juvenile *Acanthodactylus erythrurus* in *Corema album.*

1044 hrs, adult *Acanthodactylus erythrurus* shot in *Juniperus phoenicea*.

1052 hrs, *Acanthodactylus erythrurus* shot in *Cistus crispus* area with *Halimium halimiifolium.*

1055 hrs, *Acanthodactylus erythrurus* under *Pistacia lentiscus.*

1056 hrs, *Acanthodactylus erythrurus* under *Pistacia lentiscus.*

1058 hrs, *Acanthodactylus erythrurus* shot in sand in vic. of *Pistacia lentiscus.*

1101 hrs, adult *Acanthodactylus erythrurus*

1107 hrs, 27.2°C.

1115 hrs, *Acanthodactylus erythrurus* in open area.

1120 hrs, *Acanthodactylus erythrurus* in *Halimium halimiifolium.*

1129 hrs *Acanthodactylus erythrurus* in *Juniperus phoenicea*.

1132 hrs, *Acanthodactylus erythrurus* in shaded area vic. *Pistacia lentiscus.*

1137 hrs, *Acanthodactylus erythrurus* in *Cistus crispus* area.

1140 hrs, adult *Acanthodactylus erythrurus* in lowland-dried-up marsh area.

1143 hrs, *Acanthodactylus erythrurus* shot in marshy area while active on sand-clay path.

1146 hrs, *Acanthodactylus erythrurus* shot in *Halimium halimiifolium* area.

1148 hrs, *Acanthodactylus erythrurus* in *Halimium halimiifolium*.

1152 hrs, *Acanthodactylus erythrurus* in *Halimium halimiifolium.*

1159 hrs, *Acanthodactylus erythrurus* in *Cistus crispus* and *Juniperus phoenicea*.

1200 hrs, 28.9°C.

1220 hrs, *Acanthodactylus erythrurus* shot in *Halimium halimiifolium* and *Corema album* area.

1227 hrs, *Acanthodactylus erythrurus* in *Juniperus phoenicea*.

1230 hrs, *Acanthodactylus erythrurus* in sand area around *Juniperus phoenicea*.

1233 hrs, *Acanthodactylus erythrurus* shot under *Juniperus phoenicea* after retreating from area

of *Corema album* and seems to stay under bushes at this time.

1244 hrs, *Acanthodactylus erythrurus* in *Halimium halimiifolium*

1245 hrs, *Acanthodactylus erythrurus* in shady pine (*Pinus pinea*) needle area.

1253 hrs, 30.0°C.

1259 hrs, *Acanthodactylus erythrurus* shot in *Halimium halimiifolium* and *Cistus crispus* area.

**1970, 9 August, La Algaida (N36.862136 W6.302683) -3-**

1304 hrs, *Acanthodactylus erythrurus* in area of *Juniperus phoenicea*.

1310 hrs, *Acanthodactylus erythrurus* under *Corema album.*

1315 hrs, *Acanthodactylus erythrurus* in *Corema album.*

1338 hrs, 30.0°C.

1350 hrs, *Psammodromus algirus* in debris under *Pinus pinea* vic. of *Cistus crispus* and

*Halimium halimiifolium.*

1357 hrs, *Psammodromus algirus* under *Pinus pinea* in *Corema album* with *Pistacia lentiscus*

and *Juniperus phoenicea*.

1419 hrs, *Acanthodactylus erythrurus* under *Juniperus phoenicea*.

1430 hrs, *Acanthodactylus erythrurus* in *Pistacia lentiscus.*

1434 hrs, 32.8°C.

1500 hrs, END.

*Psammodromus algirus* = CMFS 19089-19094; CM 53398-53403.

*Acanthodactylus erythrurus* = CMFS 19071-19088; CM 53397[30]

ES 282 Ericaceae, *Corema album* (L.) D. Don.; ES 283 Cupressaceae, *Juniperus phoenicea* L.

**1970, 9 August, Sanlúcar de Barrameda (General), (N36.77768 W6.35778)**

*Blanus mariae* (CMFS 19095; CM 53404). Luis E. Hidalgo Gibaja (Patriarch, *Bodegas Hidalgo*

of *La Gitana* Manzanilla fame)

**1970, 14 August, Puerto de Santa María-Puerto Real-Chiclana-Vejer-Tarifa-Algeciras-Los Barrios-Road to Facinas**

1530 hrs-1835 hrs Nothing of interest noted.

**1970, 14 August, Base Naval de Rota, General (~N 36.627812 W6.331415)**

*Timon lepidus* (CMFS 19138; CM 53418) W. R. Maxwell, coll. & prep.

**1970, 15 August, Facinas-Tarifa-Los Barrios-Algeciras**

0900 hrs-1807 hrs

**1970, 15 August, Facinas, 8.9 mi. NE (N36.14931 W5.58479) and:**

0.3 mi. SE, 0922 hrs, 26.7°C, adult *Tarentola mauritanica* on marble slab.

1.6 mi. SE, 0944 hrs, 25.6°C, adult *Psammodromus algirus* sunning near large boulder.

3.2 mi. SE, 1015 hrs, adult *Tarentola mauritanica*(CMFS 19104-19125; CM 53413[28], UCM

44970, UCM 44972) shot on concrete abutment.

2.7 mi. SE, 2 *Tarentola mauritanica* seen in a culvert and the young specimen was collected.

The adult was actively changing position as if it were trying to get more sun but it’s

possible that it saw me. The area here is basically montane with much *Quercus suber*

and very rocky soil.

2.5 mi. SE (N36.13541 W5.55192, 327 m), 1112 hrs, 24.4°C, *Psammodromus algirus* (CMFS 19101-19103; CM 53410-53412) shot while sunning atop culvert head slab.

2.5 mi. SE(N36.13541 W5.55192, 327 m), 1126 hrs, 26.7°C, *Tarentola mauritanica* shot (CMFS 19104-19125; CM 53413[28], UCM 44970, UCM 44972)on culvert in shady area. The ground here is covered with *Pteridium*, *Pistacia lentiscus*, and what appears to be blackberry (or raspberry) bushes.

2.3 mi. SE, (N36.13789 W5.55570), 1130 hrs, 25.0°C, *Tarentola mauritanica* shot (CMFS 19104-19125; CM 53413[28], UCM 44970, UCM 44972)under bridge in heavy *Quercus suber* and raspberry bush area.

2.0 mi. SE, 1143 hrs, 26.7°C, juvenile *Podarcis vaucheri* shot but not collected.

1.8 mi. SE (N36.13749 W5.56068, 275 m), 1150 hrs, 29.4°C, *Psammodromus algirus* (CMFS 19101-19103; CM 53410-53412) shot from a stone wall.

0.8 mi. SE, 1212 hrs, 32.2°C, ♀ *Podarcis vaucheri* (CMFS 19098-19100; CM 53407-53409)

shot and collected in the rocky substrate of a river bed in area of *Quercus suber*.

0.8 mi. SE, 1225 hrs, 34.4°C, *Tarentola mauritanica* on the side of a culvert but not collected.

0.5 mi. SE, 1304 hrs, 35.0°C, *Tarentola mauritanica* alive on a culvert (shady side).

0.1 mi. SE, 1356 hrs, 35.0°C, *Tarentola mauritanica* shot (CMFS 19104-19125; CM 53413[28],

UCM 44970, UCM 44972) on bridge abutment while in shade.

**1970, 15 August, Facinas (N36.14768 W5.70281)**

8.8 mi. NE, 1405 hrs, 36.1°C, two juvenile *Tarentola mauritanica* caught (CMFS 19104-19125; CM 53413[28], UCM 44970, UCM 44972) in culvert shady area.

**1970, 15 August, Facinas (N36.14768 W5.70281) -2-**

8.6 mi. NE, 1413 hrs, 28.9°C, adult *Tarentola mauritanica* shot (CMFS 19104-19125;

7.4 mi. NE, 1417 hrs, 32.2°C, *Tarentola mauritanica* shot (CMFS 19104-19125; CM 53413[28],

UCM 44970, UCM 44972) while in shade.

7.4 mi. NE, 1431 hrs, 35.0°C, *Tarentola mauritanica* shot (CMFS 19104-19125; CM 53413[28],

UCM 44970, UCM 44972) while on bridge abutment alone.

7.3 mi. NE, 1445 hrs, 34.4°C, 2 *Tarentola mauritanica* shot (CMFS 19104-19125; CM 53413[28], UCM 44970, UCM 44972) and one *Mauremys leprosa*  seen.

The *Mauremys* was living in a small (± 1.8 m x 1.2 m x 1 m deep) pond of fresh water

with constant replenishment.

7.1 mi. NE, 1450 hrs, 33.9°C, 2 adult *Tarentola mauritanica* on a bridge abutment, one shot.

7.0 mi. NE, 1505 hrs, adult *Tarentola mauritanica* shot (CMFS 19104-19125; CM 53413[28],

UCM 44970, UCM 44972), sub-adult seen.

7.0 mi. NE, 1509 hrs, 34.4°C, *Tarentola mauritanica* shot (CMFS 19104-19125; CM 53413[28],

UCM 44970, UCM 44972) from top of bridge.

6.9 mi. NE, 1514 hrs, 31.1°C, *Tarentola mauritanica* shot (CMFS 19104-19125; CM 53413[28],

UCM 44970, UCM 44972) on culvert.

6.9 mi. NE, 1515 hrs, 33.3°C, *Psammodromus algirus* (CMFS 19101-19103; CM 53410-53412)

shot along wall in shade.

6.7 mi. NE, 1530 hrs, 34.4°C, adult *Tarentola mauritanica* shot (CMFS 19104-19125; CM

53413[28], UCM 44970, UCM 44972), 2 juveniles noted, large snake heard but not seen.

6.6 mi. NE, 1536 hrs, 35.0°C, *Tarentola mauritanica* shot off culvert (CMFS 19104-19125; CM

53413[28], UCM 44970, UCM 44972) while 2 others, including one juvenile, observed.

6.4 mi. NE, 1539 hrs, 32.8°C, *Tarentola mauritanica*

6.2 mi. NE, 1546 hrs, 30.6°C, *Pelophylax perezi* (CMFS 19097; CM 53406) shot in rapidly

running water.

6.0 mi. NE, 1552 hrs, 29.4°C, *Tarentola mauritanica* shot (CMFS 19104-19125; CM 53413[28],

UCM 44970, UCM 44972) in shade on a culvert.

5.7 mi. NE, 1605 hrs, 35.0°C, 2 *Tarentola mauritanica* taken (CMFS 19104-19125; CM

53413[28], UCM 44970, UCM 44972) from a concrete bridge while a *Timon lepidus* was

observed.

2.3 mi. NE, 1629 hrs, 32.8°C, juvenile *Podarcis vaucheri* (CMFS 19098-19100; CM 53407-

53409) shot, *Timon lepidus* seen in crevice of bridge support (stone).

8.9 mi. NE, 1800 hrs, 27.8°C, *Timon lepidus* A.O.R..

*Tarentola mauritanica* appeared to be partially in ecdysis and one specimen losing his entire skin was taken.

**1970, 16 August, Facinas-Tarifa-Algeciras-San Roque-Algeciras-Vejer de la Frontera-Chiclana de la Frontera-Rota**

0849 hrs-1646 hrs, 0849 = 21.1°C.

**1970, 16 August, Facinas (N36.14768 W5.70281)**

8.9 mi. NE, 0.1 mi. SE, 0901 hrs, *Tarentola mauritanica* sunning itself.

8.8 mi. NE, 0938 hrs, 25.6°C, large dipteran (ES 284, Diptera, Tabanidae, CM accession 24782)

collected from windshield. ES 285(5) (Diptera, Muscoidea, CM accession 24782).

7.7 mi. NE, 0951 hrs, 26.7°C, 2 *Tarentola mauritanica*, one taken (CMFS 19126-19133; CM

**1970, 16 August, Facinas (N36.14768 W5.70281) -2 -**

53413[26], UCM 44968-44969, UCM 44971, UCM 44973), *Podarcis vaucheri* (CMFS

19134-19137; CM 53414-53417) also collected.

7.4 mi. NE, 1006 hrs, 25.0°C, *Podarcis vaucheri* shot off aD.O.R.nment to bridge.

7.2 mi. NE, 1011 hrs, 27.8°C, *Podarcis vaucheri* on wall.

7.0 mi. NE, 1020 hrs, 27.8°C, adult *Tarentola mauritanica* shot (CMFS 19126-19133; CM

53413[26], UCM 44968-44969, UCM 44971, UCM 44973).

6.9 mi. NE, 1025 hrs, 26.7°C, young *Tarentola mauritanica* shot (CMFS 19126-19133; CM

53413[26], UCM 44968-44969, UCM 44971, UCM 44973) from a culvert while in sun.

6.8 mi. NE, 1037 hrs, 26.1°C, 2 *Podarcis vaucheri* (CMFS 19134-19137; CM 53414-53417)

taken on bridge and one other seen. Fresh water stream flowing beneath the bridge and

heavy foliage also present.

6.8 mi. NE, 1046 hrs, 28.9°C, 2 young *Tarentola mauritanica* on culvert.

6.7 mi. NE, 1050 hrs, 28.9°C, *Tarentola mauritanica* shot on wall of culvert (CMFS 19126-

19133; CM 53413[26], UCM 44968-44969, UCM 44971, UCM 44973); sunning and no

other seen.

6.6 mi. NE, 1058 hrs, 26.7°C, *Tarentola mauritanica* shot (CMFS 19126-19133; CM 53413[26],

UCM 44968-44969, UCM 44971, UCM 44973) on culvert and one other seen.

**1970, 16 August** **Facinas -3-** 1.0 mi. NE, and:

1.3 mi. SE, 1159 hrs, 36.7°C, ~1.8 m x 1.2 m x 1 m pond harbors 2 juvenile

*Mauremys leprosa*, 12 *Pelophylax perezi*, none of which were captured.

1.9 mi. SE, 1240 hrs, 39.4°C, *Tarentola mauritanica* (CMFS 19126-19133; CM 53413[26],

UCM 44968-44969, UCM 44971, UCM 44973) shot from under bridge.

2.0 mi. SE, 1244 hrs, 35.6°C, *Tarentola mauritanica* on a wall.

2.7 mi. SE, 1258 hrs, 41.1°C, *Tarentola mauritanica* under a bridge, *Timon lepidus* also in area.

4.8 mi. SE, 1312 hrs, 34.4°C, 2 young *Timon lepidus* in culvert.

4.9 mi. SE, 1318 hrs, 33.3°C, 2 *Tarentola mauritanica* under culvert.

General note: from data collected these past two days, it would appear that *Tarentola mauritanica* may be a communal nester but most seem to be solitary after breeding season as few locations provided more than one specimen. Those which did provide two or more were generally larger areas and may provide sufficient territory for two or more specimens.

**1970, 17 August, La Barca de La Florida (N36.63536 W5.88744, 76 m)**

ES 52-57. ES 53, Compositae, *Carlina racemosa* L; ES 54, Gentianaceae, *Centaurium boissieri* Willk.; ES 57 (=ES 152), *Eucalyptus globulus* Labill. ES52, 55 & 56 not identifiable.

**1970, 21 August, Puerto de Santa Maria, CA-603 Maxwell Collection.**

~2.0 mi. N, *Malpolon monspessulanus* (CMFS 19149; CM 53420) D.O.R..

**1970, 24 August, Base Naval de Rota, General (~N 36.627812 W6.331415)**

**ES 286** Buthidae, *Buthus occitanus*

**1970, 25 August, Base Naval de Rota, General (~N 36.627812 W6.331415)**

2200 hrs-2300 hrs.

2 *Mauremys leprosa* (CMFS 19141-19142; CM 53421-53422), 2 *Pelophylax perezi* (CMFS 19143-19144; CM 53423-53424) collected in ponds which are now almost dried up. Air = 22.2°C, water = 23.9°C, and one *Pelophylax* *perezi* was collected on perimeter road to base.

**1970, 26 August, Rota-Jerez de la Frontera-Arcos de la Frontera-Villamartín-Arcos-Jerez-Rota**

1900 hrs-2300 hrs, 25.6°C -22.2°C. Nothing of biological interest noted this date.

**1970, 29 August, La Algaida (N36.862136 W6.302683)**

1230 hrs-1800 hrs, 1230 hrs = 27.8°C.

1235 hrs, *Psammodromus algirus* on outer branches of *Pistacia lentiscus* about 1.6 m off

ground’s surface.

1245 hrs, *Acanthodactylus erythrurus* shot in *Corema album.*

1300 hrs, 26.1°C.

Mosquitoes are at pest proportions now. Never noticed them before but now they seem to have reached epidemic proportions.

1309 hrs, *Psammodromus algirus* shot under *Pistacia lentiscus*.

1319 hrs, *Acanthodactylus erythrurus* shot under *Juniperus phoenicea*.

1320 hrs, *Acanthodactylus erythrurus* in open sand vic. mc and *Juniperus phoenicea*.

1330 hrs, *Acanthodactylus erythrurus* in *Corema album*.

1334 hrs, *Acanthodactylus erythrurus* in *Corema album*.

1345 hrs, *Acanthodactylus erythrurus* in open sand, *Juniperus phoenicea*, and *Corema album*.

1435 hrs, 28.3°C.

1443 hrs, *Acanthodactylus erythrurus* shot in *Halimium halimiifolium*.

1446 hrs, *Acanthodactylus erythrurus* in *Juniperus phoenicea*.

1455 hrs, *Psammodromus algirus* shot in *Corema album*.

1459 hrs, *Psammodromus algirus* in *Corema album* and *Juniperus phoenicea*.

1506 hrs, *Acanthodactylus erythrurus* shot in *Corema album*.

1513 hrs, *Acanthodactylus erythrurus* shot in *Corema album*.

1520 hrs, *Acanthodactylus erythrurus* in *Juniperus phoenicea*.

1525 hrs, *Psammodromus algirus* in *Corema album* and *Juniperus phoenicea*.

1535 hrs, *Acanthodactylus erythrurus* shot under *Juniperus phoenicea*.

1537 hrs, *Psammodromus algirus* in *Juniperus phoenicea*.

1542 hrs, juvenile *Acanthodactylus erythrurus* in *Myrtus communis*.

1552 hrs, 27.2°C, *Psammodromus algirus* in *Myrtus communis*.

1558 hrs, *Acanthodactylus erythrurus* shot under *Pistacia lentiscus*, in *Cistus crispus*, *Halimium*

*halimiifolium*, and *Juniperus phoenicea*.

1609 hrs, *Acanthodactylus erythrurus* under *Juniperus phoenicea*.

1629 hrs, *Acanthodactylus erythrurus* shot in *Corema album*, in ecdysis.

1639 hrs, *Psammodromus algirus* shot in *Juniperus phoenicea*.

1648 hrs, 27.2°C.

1655 hrs, juvenile *Psammodromus algirus* in *Myrtus communis*.

1658 hrs, juvenile *Acanthodactylus erythrurus* shot in *Myrtus communis*.

1709 hrs, juvenile *Acanthodactylus erythrurus* in *Juniperus phoenicea*.

**1970, 29 August, La Algaida -2-**

1726 hrs, juvenile *Acanthodactylus erythrurus* in *Corema album*.

1730 hrs, 2 sub-adult *Acanthodactylus erythrurus*, one shot.

1737 hrs, *Acanthodactylus erythrurus* shot in *Corema album*.

1741 hrs, *Acanthodactylus erythrurus* shot in open sand.

1750 hrs, adult *Acanthodactylus erythrurus* shot in *Corema album* while running from *Juniperus*

*phoenicea.*

1756 hrs, juvenile *Acanthodactylus erythrurus* in *Corema album*.

1810 hrs, 25.6°C.

**1970, 30 August, La Algaida (N36.862136 W6.302683)**

As of 1810 hrs last night very few *Acanthodactylus erythrurus* were being seen. Those which were present seem to stay in holes with sun exposure.

0740 hrs, 15.6°C.

0814 hrs, *Psammodromus algirus* in *Pistacia lentiscus*.

0826 hrs, 20.6°C.

0830 hrs, *Psammodromus algirus* in *Myrtus communis.*

0858 hrs, *Psammodromus algirus* shot in sand under *Pinus pinea*, *Juniperus phoenicea*, and

*Halimium halimiifolium* while sunning itself.

0908 hrs, *Acanthodactylus erythrurus* shot under *Juniperus phoenicea*.

0913 hrs, *Psammodromus algirus* shot in *Cistus crispus* and *Juniperus phoenicea*.

0918 hrs, *Psammodromus algirus* in *Cistus crispus* and *Halimium halimiifolium* under *Pinus*

*pinea* in pine needles.

0921 hrs, *Psammodromus algirus* in *Cistus crispus*, *Halimium halimiifolium* area under *Pinus*

*pinea* in pine needles.

0922 hrs, juvenile *Acanthodactylus erythrurus* under *Pistacia lentiscus*.

0930 hrs, *Acanthodactylus erythrurus* shot in *Halimium halimiifolium* and *Pinus pinea.*

0932 hrs, *Psammodromus algirus* shot in *Cistus crispus*.

0935 hrs, *Acanthodactylus erythrurus* in *Juniperus phoenicea*.

0939 hrs, 2 juvenile *Acanthodactylus erythrurus*, one shot vic. *Pistacia lentiscus*.

0945 hrs, sub-adult *Acanthodactylus erythrurus* in *Halimium halimiifolium* and *Juniperus phoenicea*.

0949 hrs, *Acanthodactylus erythrurus* shot in sand while sunning in vic. *Halimium halimiifolium*

and *Juniperus phoenicea*.

0959 hrs, juvenile *Acanthodactylus erythrurus* shot under *Halimium halimiifolium*.

0957 hrs, sub-adult *Acanthodactylus erythrurus* shot under *Pistacia lentiscus*.

0959 hrs, juvenile *Acanthodactylus erythrurus* in *Cistus crispus*.

1002 hrs, juvenile *Acanthodactylus erythrurus* in open sand.

1006 hrs, 4 *Acanthodactylus erythrurus* in *Halimium halimiifolium* area.

1010 hrs, *Acanthodactylus erythrurus* shot in *Halimium halimiifolium*.

1025 hrs, 1011-1025, 15 minute break (Guardia Civil checking permits).

1027 hrs, 26.7°C.

1029 hrs, *Psammodromus algirus* shot in *Cistus crispus* area.

1030 hrs, 3 juvenile *Acanthodactylus erythrurus* vic. *Pistacia lentiscus*.

1035 hrs, *Psammodromus algirus* under *Pinus pinea* in conjunction with *Cistus crispus*.

1038 hrs, *Psammodromus algirus* in *Halimium halimiifolium* and *Juniperus phoenicea*.

**1970, 30 August, La Algaida -2-**

1039 hrs, juvenile *Acanthodactylus erythrurus* in *Corema album*.

1042 hrs, *Acanthodactylus erythrurus* in *Corema album*.

1045 hrs, juvenile *Acanthodactylus erythrurus* in *Juniperus phoenicea* while sunning.

1056 hrs, juvenile *Acanthodactylus erythrurus* in *Corema album*.

1058 hrs, *Psammodromus algirus* shot in *Corema album*.

1059 hrs, *Acanthodactylus erythrurus* shot in *Juniperus phoenicea*, *Corema album*, and *Pistacia*

*lentiscus* area.

1106 hrs, *Acanthodactylus erythrurus* in *Corema album*.

1109 hrs, juvenile *Acanthodactylus erythrurus* in *Juniperus phoenicea*.

1110 hrs, juvenile *Acanthodactylus erythrurus* in open sand near *Juniperus phoenicea*.

1115 hrs, *Psammodromus algirus* in *Juniperus phoenicea* and on base of *Pinus pinea*.

1135 hrs, 27.8°C.

1146 hrs, *Acanthodactylus erythrurus* in *Juniperus phoenicea*.

1148 hrs, *Acanthodactylus erythrurus* in *Halimium halimiifolium* and *Pistacia lentiscus*.

1150 hrs, *Acanthodactylus erythrurus* shot in *Halimium halimiifolium*.

1157 hrs, *Acanthodactylus erythrurus* shot in *Cistus crispus*.

1159 hrs, *Acanthodactylus erythrurus* shot in *Cistus crispus*.

1205 hrs, *Psammodromus algirus* shot vic. of *Juniperus phoenicea* and *Pistacia lentiscus*.

1210 hrs, *Acanthodactylus erythrurus* shot in sunny sand area near *Juniperus phoenicea*.

1212 hrs, *Acanthodactylus erythrurus* in *Juniperus phoenicea*.

1217 hrs, *Psammodromus algirus* in *Pistacia lentiscus*.

1224 hrs, *Acanthodactylus erythrurus* in *Juniperus phoenicea*.

1243 hrs, 30.0°C.

One ***Psammodromus algirus*** was noted to emerge from *Juniperus phoenicea* onto sand in direct sun, align its body perpendicular to rays of sun, and rapidly move its front and rear legs from side to side as if to “shake” and previously remove heated sand from the area to make a level

area on which to rest its feet. Interestingly, all four feet were moved side to side (shaken) simultaneously for a period of about four-ten seconds. Its body remained almost stationary

during this time and its head didn’t seem to move much at all. The movement could have been for the purpose of comfort or for the purpose of removing heated sand from under the creature’s

feet. My thoughts bend toward the latter supposition.

*Acanthodactylus erythrurus* = CMFS 19145-19157; CM 53425[26].

*Psammodromus algirus* = CMFS 19158-19160; CM 53426[8], UCM 44984.

**1970, 30 August, Sanlúcar de Barrameda (N36.77768 W6.35778), CA-9027**

1.0 miN **(~N36.78201 W6.34834)**, juvenile *Malpolon monspessulanus*

**1970, 2 September, Sanlúcar de Barrameda (N36.77768 W6.35778)**

*Hemorrhois hippocrepis* (CMFS 19180; CM 53427). Luis E. Hidalgo Gibaja (Patriarch,

*Bodegas Hidalgo* of *La Gitana* Manzanilla fame).

**1970, 4 September, Puerto de Santa María (= Valdelagrana, N36.57945 W6.22406)**

*Hyla meridionalis* (CMFS 19181; CM 53428) J. L. Allen, donation.

**1970, 4 September, Rota-Puerto de Santa María-Chiclana de la Frontera-Vejer de la Frontera-Tarifa-Algeciras-San Roque-Sotogrande-Málaga Province Border**

1700 hrs-2100 hrs. Nothing of herpetological interest noted.

**1970, 6 September, Málaga Province Border-Sotogrande-San Roque-Algeciras-Tarifa-Vejer de la Frontera-Chiclana de la Frontera-Puerto de Santa María-Rota**

1000 hrs-1300 hrs. Nothing of herpetological interest noted.

**1970, 7 September, Rota-Jerez-Alcalá-Los Barrios-Algeciras-Tarifa-Vejer-Chiclana-Puerto Real-Puerto de Santa María-Rota**

1930 hrs-0050 (8 September), 21.1°C-20.0°C.

**1970, 7 September, Jerez de la Frontera (Cartuja de Santa María de la Defenó), to SE**

**(N36.65556 W6.09378), C-440 (1969-1972)**

4.8 mi. E, 2010 hrs, 22.2°C, large adult *Pelophylax perezi* A.O.R..

15.2 mi. E, 2041 hrs, 21.1°C, sub-adult *Hemorrhois hippocrepis* (CMFS 19182; CM 53429)

D.O.R..

**1970, 7 September, Los Barrios (N36.18209 W5.48920), C-440 (1969-1972)**

8.1 mi. WNW, *Pelophylax perezi* (CMFS 19183; CM 53430) A.O.R..

**1970, 8 September, Sanlúcar de Barrameda (N36.77768 W6.35778)**

*Chamaeleo chamaeleon* (CMFS 19184-19186; CM 53431-53433). Luis E. Hidalgo

Gibaja (Patriarch, *Bodegas Hidalgo* of *La Gitana* Manzanilla fame).

**1970, 9 September, Sanlúcar de Barrameda-Trebujena-Jerez de la Frontera**

1950-2130 hrs, 21.1°C. Nothing of herpetological interest noted.

**1970, 10 September, Jerez de la Frontera-La Barca de la Florida-San José del Valle-Tempul-Algar-Arcos de la Frontera-Jerez.** 1900 hrs-2245 hrs, 21.7°C-20.0°C. Between La Barca and Tempul 3 rabbits seen A.O.R. and appear to be quite active.

**1970, 10 September, San José del Valle**

4.4 mi. E, *Caprimulgus* A.O.R..

**1970, 10 September, Tempul**

2.6 mi. E, *Caprimulgus* A.O.R..

**1970, 10 September, Algar**

1.0 mi. W, *Caprimulgus* A.O.R..

**1970, 10 September, Arcos de la Frontera-Jerez de la Frontera**

Several *Rattus* A.O.R./D.O.R. and the cooling trend noted in the past two days may be affecting the re-emergence of these animals.

**1970, 10 September, Base Naval de Rota, General (~N36.625823 W6.313244)**

Perimeter road to E, 2240 hrs, 20.0°C, juvenile *Hemorrhois hippocrepis* (CMFS 19187; CM

53434) A.O.R..

**1970, 11 September, Base Naval de Rota, General (~N 36.627812 W6.331415)** Maxwell collection. *Chamaeleo chamaeleon* (CMFS 19188; CM 53435).

**1970, 15 September, Naval Base-Jerez de la Frontera-Arcos de la Frontera-Villamartín-Arcos de la Frontera-Jerez de la Frontera-Naval Base**

1940 hrs-2400 hrs, 22.2°C-14.4°C.

**1970, 15 September, Villamartín (N36.85870 W5.63933) N-342**

3.9 mi. WSW, 2240 hrs, 18.9°C, *Pelophylax perezi* A.O.R..

Nothing else of herpetological interest noted.

**1970, 19 September, Rota-Chipiona-Sanlúcar-La Algaida (Bonanza, 4.9 mi. N)**

0900 hrs-1830 hrs, 0924 hrs = 22.8°C.

**1970, 19 September, La Algaida (N36.862136 W6.302683)**

1022 hrs, 26.1°C.

1026 hrs, *Acanthodactylus erythrurus* shot in *Juniperus phoenicea*.

1032 hrs, *Acanthodactylus erythrurus* shot in *Cistus crispus* and *Halimium halimiifolium*.

1037 hrs, *Acanthodactylus erythrurus* in *Juniperus phoenicea*.

1039 hrs, *Acanthodactylus erythrurus* in *Juniperus phoenicea*.

1042 hrs, juvenile *Acanthodactylus erythrurus* in *Corema album*.

1046 hrs, juvenile *Acanthodactylus erythrurus* in *Juniperus phoenicea*.

1054 hrs, *Acanthodactylus erythrurus* in open sand.

1057 hrs, juvenile *Acanthodactylus erythrurus* followed through *Juniperus phoenicea*, *Corema*

*album*, and open sand.

**1970, 19 September, La Algaida -2-**

1101 hrs, juvenile *Acanthodactylus erythrurus* shot in *Corema album*.

1105 hrs, juvenile *Acanthodactylus erythrurus* in *Corema album*.

1109 hrs, adult *Acanthodactylus erythrurus* in *Corema album*.

1112 hrs, juvenile *Acanthodactylus erythrurus* in *Corema album*.

1115 hrs, juvenile *Acanthodactylus erythrurus* shot in *Corema album*.

1120 hrs, *Acanthodactylus erythrurus* shot in *Juniperus phoenicea*.

1126 hrs, *Acanthodactylus erythrurus* shot in *Halimium halimiifolium*.

1130 hrs, *Acanthodactylus erythrurus* seen in *Juniperus phoenicea*.

1132 hrs, *Acanthodactylus erythrurus* shot in *Cistus crispus*/*Halimium halimiifolium* area.

1141 hrs, juvenile *Acanthodactylus erythrurus* shot in *Halimium halimiifolium*.

1155 hrs, 28.9°C.

1158 hrs, *Acanthodactylus erythrurus* in *Pistacia lentiscus*.

1204 hrs, *Acanthodactylus erythrurus* shot in *Pistacia lentiscus*.

1213 hrs, *Acanthodactylus erythrurus* shot in *Juniperus phoenicea*.

1226 hrs, juvenile and adult *Acanthodactylus erythrurus* in *Juniperus phoenicea*.

1229 hrs, *Acanthodactylus erythrurus* shot under *Halimium halimiifolium* and *Pistacia lentiscus*.

1232 hrs, *Acanthodactylus erythrurus* in *Halimium halimiifolium*.

1237 hrs, *Acanthodactylus erythrurus* in *Juniperus phoenicea*.

1242 hrs, *Acanthodactylus erythrurus* shot in *Halimium halimiifolium* area.

1246 hrs, *Acanthodactylus erythrurus* shot in *Halimium halimiifolium* area.

1255 hrs, 2 *Acanthodactylus erythrurus* in *Cistus crispus*.

1256 hrs, juvenile *Acanthodactylus erythrurus* in *Juniperus phoenicea*.

1259 hrs, *Psammodromus algirus* in *Juniperus phoenicea*.

1312 hrs, *Acanthodactylus erythrurus* shot in *Halimium halimiifolium* area.

Flies are terrible right now. No mosquitoes noted.

1316 hrs, *Acanthodactylus erythrurus* under *Pistacia lentiscus*.

1322 hrs-1355 hrs, lunch.

1359 hrs, *Acanthodactylus erythrurus* in *Myrtus communis*.

1406 hrs, *Acanthodactylus erythrurus* in *Juniperus phoenicea*.

1419 hrs, *Acanthodactylus erythrurus* in *Juniperus phoenicea*.

1430 hrs, *Psammodromus algirus* in *Juniperus phoenicea*.

1438 hrs, *Acanthodactylus erythrurus* shot in *Halimium halimiifolium* area.

1449 hrs, *Psammodromus algirus* shot in *Juniperus phoenicea*/*Cistus crispus* area.

1500 hrs, 32.8°C.

1512 hrs, *Acanthodactylus erythrurus* in *Halimium halimiifolium* and *Juniperus phoenicea*.

1516 hrs, *Acanthodactylus erythrurus* under *Juniperus phoenicea*.

1518 hrs, *Acanthodactylus erythrurus* shot in *C*or*ema album*.

1524 hrs, *Acanthodactylus erythrurus* shot in *C*or*ema album* and wind has started – wasn’t

windy earlier.

1528 hrs, *Acanthodactylus erythrurus* shot under *C*or*ema album*.

1532 hrs, *Acanthodactylus erythrurus* in *Juniperus phoenicea* and *C*or*ema album* area.

1540 hrs, *Psammodromus algirus* in *Juniperus phoenicea*.

1547 hrs, *Acanthodactylus erythrurus* shot in *Juniperus phoenicea* and *Cistus crispus*.

1553 hrs, *Acanthodactylus erythrurus* shot in *Pinus pinea* area under *Juniperus phoenicea*.

**1970, 19 September, La Algaida -3-**

1557 hrs, *Acanthodactylus erythrurus* shot in open sand after having been in *Juniperus*

*phoenicea*.

1559 hrs, *Acanthodactylus erythrurus* in *Juniperus phoenicea* and *Pinus pinea* area.

1606 hrs, *Acanthodactylus erythrurus* in *C*or*ema album*/*Juniperus phoenicea*.

1609 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album.*

1627 hrs, 32.8°C, ES 287 (Diptera, Hippoboscidae, CM accession 24743).

1636 hrs, *Acanthodactylus erythrurus* shot in *Halimium halimiifolium* and *Cistus crispus*.

1643 hrs, *Psammodromus algirus* shot in *C*or*ema album*.

1646 hrs, *Acanthodactylus erythrurus* shot in *C*or*ema album*.

1652 hrs, juvenile *Acanthodactylus erythrurus* shot in *Halimium halimiifolium*/*Juncus acutus*

area.

1659 hrs, *Acanthodactylus erythrurus* in *C*or*ema album*.

1701 hrs, *Acanthodactylus erythrurus* in *C*or*ema album*.

1704 hrs, *Acanthodactylus erythrurus* in *C*or*ema album*.

1713 hrs, juvenile *Acanthodactylus erythrurus* shot in *Juncus acutus*.

1716 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

1718 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

1726 hrs, *Acanthodactylus erythrurus* shot in *Juniperus phoenicea*.

1728 hrs, *Psammodromus algirus* in *Juniperus phoenicea*.

1730 hrs, *Acanthodactylus erythrurus* in *C*or*ema album*.

1733 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*/*Halimium halimiifolium*.

1736 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

1740 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

1758 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

1759 hrs, *Psammodromus algirus* shot in *Juniperus phoenicea*.

1801 hrs, juvenile *Acanthodactylus erythrurus* shot in *Juniperus phoenicea* and *C*or*ema album*.

1819 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

1821 hrs, 2 *Psammodromus algirus* heard in *Myrtus communis*.

1830 hrs, 29.4°C, END.

*Acanthodactylus erythrurus* (CMFS 19222-19224; CM 53438[30], UCM 44978) part

*Psammodromus algirus* (CMFS 19225-19226; CM 53442-53443) part

**1970, 20 September, La Algaida (Bonanza, 4.9 mi. N)-Sanlúcar-Chipiona-Rota-Puerto de Santa Maria-Chiclana de la Frontera-Vejer de la Frontera-Puerto del Cabrito-Algeciras-San Roque-Sotogrande-Los Barrios-Casas del Castaño-Alcalá de Los Gazules-Puerto Real-Naval Base,** 0730 hrs-2215 hrs

**1970, 20 September,** **La Algaida (N36.862136 W6.302683)**

0730 hrs, sunrise, 14.4°C.

0810 hrs, 16.7°C.

0850 hrs, 20.0°C, *Psammodromus algirus* heard in *Pistacia lentiscus*.

0904 hrs, large adult ♂ Red Deer (*Cervus elaphus*) in area of sandy knolls.

0924 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

0931 hrs, juvenile *Acanthodactylus erythrurus* shot in *Halimium halimiifolium*.

0939 hrs, juvenile *Acanthodactylus erythrurus* shot under *Pinus pinea*.

**1970, 20 September,** **La Algaida (N36.862136 W6.302683) -2-**

0957 hrs, 25.0°C.

1003 hrs, *Psammodromus algirus* shot in *Myrtus communis*.

1006 hrs, *Acanthodactylus erythrurus* in open sand.

1024 hrs, *Acanthodactylus erythrurus* in *C*or*ema album*.

1030 hrs, *Psammodromus algirus* shot under *Pinus pinea* in vicinity of *Juniperus phoenicea*.

1036 hrs, *Acanthodactylus erythrurus* shot in *Halimium halimiifolium* and *Juniperus phoenicea*

area.

1039 hrs, 28.3°C, end.

*Acanthodactylus erythrurus* (CMFS 19222-19224; CM 53438[25], UCM 44978) part

*Psammodromus algirus* (CMFS 19225-19226; CM 53442-53443) part

**1970, 20 September,** **Chipiona (N36.70769 W6.41560)**

2.5 mi. SSE, juvenile *Malpolon monspessulanus* D.O.R..

**1970, 20 September,** **Puerto del Cabrito ~N36.04086 W5.56835**

4.3 mi. NNW (CA-2215), N36.09655 W5.56322, 1535 hrs, *Pelophylax perezi* in pond where

tadpoles normally taken. No larvae in evidence at this time and the pond level is > 30.5

cm lower than previously.

6.5 mi. NNW, 1554 hrs-1601 hrs, under heavy wind a small survey was made of the apparent

elevated plateau. Vegetation consists of *Quercus suber* (several), *Chamaerops humilis*

(common), *Carlina racemosa* (common), and *Cistus ladanifer* (L) is prevalent.

**1970, 20 September,** **Algeciras (N36.12751 W5.44806), N-340**

7.7 mi. SW, *Rhinechis scalaris* (CMFS 19227; CM 53444) collected D.O.R..

**1970, 20 September,** **Los Barrios (N36.18209 W5.48920), C-440 (1969-1972)**

3.4 mi. NNW, ~0.75 m *Rhinechis scalaris* D.O.R..

6.1 mi. NNW, *Malpolon monspessulanus* D.O.R..

**1970, 20 September,** **Alcalá de los Gazules (N36.44084 W5.72006), C-440**

**7**.6 mi. WNW, *Rhinechis scalaris* (CMFS 19228; CM 53445) collected D.O.R..

**1970, 20 September,** **Puerto Real, from N-IV at ~N36.53761 W6.16818 to C-440 via A-408**

9.7 mi. E, 2130 hrs, 22.2°C, *Macroprotodon brevis* (CMFS 19229; CM 53446) collected A.O.R..

**1970, 21 September, Puerto de Santa María (= Valdelagrana, N36.57945 W6.22406)**

ES 288 (Dermaptera, CM accession 24743)

**1970, 22 September,** **Puerto de Santa Maria -Jerez de la Frontera**

**1970, 22 September,** **Puerto de Santa Maria, 2.2 mi S Benchmark (= Valdelagrana, N36.57447 W6.21956, 3 M)**

1920 hrs-2000 hrs, Moisture plentiful only under rocks.

1930 hrs, juvenile *Natrix maura* (CMFS 19230; **CM 53447**) taken, nothing else to note.

2000 hrs, 21.1°C.

**1970, 22 September,** **Jerez de la Frontera (Cartuja de Santa María de la Defenó), to SE**

**(N36.65556 W6.09378), C-440 (1969-1972)**

8.1 mi. SSE (~N36.58968 W6.03583), ~0.6 m TL *Rhinechis scalaris* D.O.R..

**1970, 25 September**

**Jerez de la Frontera-La Barca de la Florida-San José del Valle-Tempul-Galis**

1400 hrs-1800 hrs, 23.3°C.

**1970, 25 September,** **San José del Valle, CA-503 (N36.61248 W5.80463) (A-2201)**

1.9 mi. E, *Timon lepidus* D.O.R..

**1970, 25 September,** **Galis, C-3331 (N36.55958 W5.60101)**

0.4 mi. E, 1555 hrs-1605 hrs, 25.6°C, stone bridge area was surveyed. *Tarentola mauritanica*

(CMFS 19231; CM 53448).

0.4 mi. E, 1555 hrs-1605 hrs, 25.6°C, stone bridge area, *Psammodromus algirus* (CMFS 19234 CM 53451)

0.4 mi. E, 1555 hrs-1605 hrs, 25.6°C, stone bridge area, 2 *Podarcis vaucheri* seen.

0.6 mi. E (N36.55804 W5.59278, 439.2 m), 1610 hrs-1616 hrs, 26.1°C, juvenile *Psammodromus algirus* (CMFS 19235, CM 53452).

0.6 mi. E (N36.55804 W5.59278, 439.2 m), 1610 hrs-1616 hrs, 26.1°C, *Podarcis vaucheri* (CMFS 19232-19233; CM 53449-53450) shot

0.6 mi. E (N36.55804 W5.59278, 439.2 m), 1610 hrs-1616 hrs, 26.1°C, *Tarentola mauritanica* seen.

1.8 mi. ENE, 1625 hrs-1637 hrs, 26.1°C, 2 *Podarcis vaucheri* on bridge. Pond in this area from

which *Pelophylax*  have been previously collected is now completely dry.

3.0 mi. ENE, 1650 hrs, 25.0°C, *Podarcis vaucheri* (CMFS 19232-19233; CM 53449-

53450) shot from retaining wall.

6.6 mi. ENE, *Bufo spinosus*

10.4 mi. ENE (N36.61126 W5.48440, 577.9 m), 1900 hrs, juvenile *Psammodromus algirus (*CMFS 19236; CM 53453) from side of granite rock.

1932 hrs, 16.7°C.

**1970, 26 September, Ubrique-Benaocaz-Villaluenga del Rosario-Zahara-Benamahoma-Ubrique-Jerez-Puerto de Santa Maria**

0900 hrs-1800 hrs, 0936 hrs, 21.1°C.

**1970, 26 September, Ubrique, C-333 (N36.67253 W5.44669) (A-373)**

3.6 mi. S, 0948 hrs, 22.2°C, *Podarcis vaucheri* on stone wall.

**1970, 26 September, Grazalema, (C-344, A-372) (N36.76188 W5.36330) & NE (CA-9123)**

**(N36.76334 W5.35965)**

6.6 mi. NE, *Malpolon monspessulanus* D.O.R..

1.5 mi. ENE, 1110 hrs, 23.3°C, *Podarcis vaucheri* on stone wall.

**1970, 26 September, Zahara de la Sierra, A-7375 and CA-9104** (**N36.84694 W5.39712)**

1.8 mi. S, 1205 hrs, 27.8°C, *Podarcis vaucheri* under bridge living in wall of bridge, *Podarcis vaucheri* (CMFS 19237; CM 53454) shot on top of bridge.

**1970, 26 September, Benamahoma, C-344 (N36.75894 W5.46421) (A-372)**

7.5 mi. E, 1300 hrs-1315 hrs, 24.4°C, 2 *Psammodromus algirus* (1 juvenile) active in area of

granite outcropping.

6.6 mi. E, 1325 hrs, 27.8°C, *Podarcis vaucheri*

4.2 mi. E, there are granite outcroppings behind a deserted public building on which *Lepus* were

observed along with 1 *Psammodromus algirus.* It might also be noted that flies in this

area were heavy today.

**1970, 27 September, Rota-Jerez-Medina Sidonia-Alcalá de los Gazules-Los Barrios-Algeciras-Tarifa-Vejer-Chiclana-Puerto Real-Puerto de Santa Maria-Rota**

0900 hrs-2000 hrs, 20.6°C-24.4°C.

**1970, 27 September, Alcalá de los Gazules, (N36.44084 W5.72006), C-440**

0.9 mi. N, *Bufo spinosus* D.O.R..

**1970, 27 September, Alcalá de los Gazules, (N36.43994 W5.71962), C-440**

9.1 mi. SE, *Hem*or*rhois hippocrepis* D.O.R..

16.0 mi. SE, 3.1 mi. SW on dirt road (~N36.20466 W5.57988, 108 m), 1400 hrs-1440 hrs, *Psammodromus algirus* (CMFS 19239; CM 53456), *Tarentola mauritanica* (CMFS 19238; CM 53455) (both juveniles) collected in a granite outcropping area typified by *Quercus suber*, *Ulex* sp*.*, *Cistus ladanifer*, *Carlina racemosa*, and *Pteridium* sp. (*aquilinum*??). The area is low montane and the day is windy with 25.6°C temps.

**1970, 27 September, Los Barrios, (N36.18209 W5.48920), C-440**

7.9 mi NNW **(~N36.25471 W5.58153, 92 M**), 2 juvenile *Pelophylax perezi* (CMFS 19241-19242; CM 53458-53459) collected in a creek bed area and several adults were active. Juvenile *Psammodromus algirus* (CMFS 19240; CM 53457) taken, along with *Natrix maura* (CMFS 19243; **CM 53460**) and a *Natrix natrix* (CMFS 19244; CM 53461) in a rocky area shaded mostly by *Quercus suber* and much *Pteridium* for land cover. *Juncus acutus* also occurs in quantity in areas of still active ponds.

**1970, 27 September, Tarifa, (N36.02652 W5.60407), N-340**

5.5 mi. NW, *Natrix maura* D.O.R..

**1970, 27 September, Vejer de la Frontera, (N36.26089 W5.96476), N-340**

6.0 mi. SE, 1900 hrs, juvenile *Malpolon monspessulanus* (CMFS 19245; CM 53462) D.O.R..

**1970, 29 September, Base Naval de Rota, Horse stables area (N36.632612 W6.319889)**

2100 hrs-2120 hrs, 22.2°C.

Nothing seen active in the *Juncus acutus* area where *Pelophylax perezi* and *Mauremys leprosa* have been noted before.

**1970, 1 October, Rota-Chipiona-Sanlúcar-Jerez-Arcos-Villamartín-Algodonales-Return**: 1750 hrs-2300 hrs, 22.2°C.

**1970, 1 October, Algodonales, (N36.87596 W5.40170), N-342 (A-384)**

5.4 mi. WNW, 2032 hrs, 23.3°C, *Discoglossus g. jeanneae* (CMFS 19246; CM 53876) A.O.R..

**1970, 1 October, Villamartín, (N36.85870 W5.63933), N-342**

5.7 mi. NE on N-342, 2130 hrs, 21.1°C, juvenile *Rhinechis scalaris* (CMFS 19247; CM 53877)

D.O.R.

**1970, 1 October, Arcos de la Frontera, (N36.75559 W5.82017), N-342 (A-382)**

3.1 mi. NE on N-342, 2220 hrs, 22.2°C, juvenile *Rhinechis scalaris* (CMFS 19248; CM 53878)

D.O.R.

**1970, 2 October, Rota-Puerto de Santa Maria-Puerto Real-Jerez de la Frontera-Return**: 2000 hrs-2230 hrs, 23.9°C-18.9°C.

**1970, 2 October, Puerto Real, from N-IV at ~N36.53761 W6.16818 to C-440 via A-408**

12.6 mi. E, 2104 hrs, 22.2°C, injured adult *Macroprotodon brevis* (CMFS 19249; CM 53879)

A.O.R..

**1970, 2 October, Base Naval de Rota, Vicinity of Harbor (N36.624244 W6.334138)**

2240 hrs, 18.9°C, first *Epidalea calamita* (CMFS 19250; CM 53880) of the Fall season.

**1970, 7 October, Puerto Real-Chiclana-Vejer-Tarifa-Algeciras-Los Barrios-Casas del Castaño-Alcalá de los Gazules-Puerto Real**: 1800 hrs-2315 hrs, 18.3°C.

Rain intermittent from 0745 hrs-0930 hrs. Overcast all day.

**1970, 7 October, Los Barrios, (N36.18209 W5.48920), C-440**

5.2 mi. NW, 2034 hrs, 15.6°C, *Bufo spinosus*  D.O.R..

2220 hrs-2250 hrs, slight drizzle, road wet but no amphibian activity noticed.

**1970, 8 October, Naval Base-Puerto de Santa Maria-Jerez-Alcalá de los Gazules-Casas del Castaño-Los Barrios-Algeciras**: 1800 hrs-2250 hrs.

Some rain today.

**1970, 8 October, Alcalá de Los Gazules, (N36.43994 W5.71962), C-440**

4.2 mi. ESE, hedgehog A.O.R.….

4.5 mi. ESE, *Caprimulgus* A.O.R..

5.8 mi. ESE, 2017 hrs, 12.2°C, *Pleurodeles waltl* (CMFS 19251; CM 53881) collected A.O.R..

10.1 mi. ESE, *Caprimulgus* A.O.R..

**1970, 8 October, Casas del Castaño, (N36.30792 W5.59662), C-440**

3.9 mi. WNW, 2036 hrs, 12.2°C, *Discoglossus g. jeanneae* A.O.R.

3.9 mi. WNW, 2036 hrs, 12.2°C, *Bufo spinosus*  (CMFS 19253-19270; CM 53883[18]) A.O.R..

2.5 mi. WNW, 2047 hrs, 10.6°C, *Discoglossus g. jeanneae* (CMFS 19271-19277; UCM 44929-

44934; CM 53884a-d, **PARATYPES**, *Discoglossus jeanneae*).

**1970, 8 October, Casas del Castaño, (N36.30792 W5.59662), C-440 -2-**

2.1 mi. WNW, 2051 hrs, 11.1°C, *Bufo spinosus*  (CMFS 19253-19270; CM 53883[18])

collected.

1.6 mi. WNW, *Lepus* A.O.R..

0.1 mi. WNW, 2100 hrs, 10.0°C, large *Bufo spinosus*  (CMFS 19253-19270; CM 53883[18])

A.O.R..

0.0 mi ESE (at the sign post for Casas del Castaño), approx. 2110 hrs, 10.0°C, 1 *Bufo spinosus*

(CMFS 19253-19270; CM 53883[18]) collected A.O.R..

1.0 mi. ESE, approx. 2110 hrs, 10.0°C, 1 *Bufo spinosus*  (CMFS 19253-19270; CM 53883[18])

collected A.O.R..

1.8 mi. ESE, 2114 hrs, 10.0°C, 3 *Discoglossus g. jeanneae* (CMFS 19271-19277; UCM 44929-

44934; CM 53884a-d, **PARATYPES**, *Discoglossus jeanneae*).

1.8 mi. ESE, 2114 hrs, 10.0°C , 1 *Bufo spinosus* (CMFS 19253-19270; CM 53883[18]) collected.

2.4 mi. ESE, 2118 hrs, 10.0°C, *Bufo spinosus*  (CMFS 19253-19270; CM 53883[18]) collected,

one seen D.O.R..

2.5 mi. ESE, 2120 hrs, 10.0°C, *Bufo spinosus*  (CMFS 19253-19270; CM 53883[18]) collected

A.O.R..

3.3 mi. ESE, 2130 hrs, 11.1°C, *Discoglossus g. jeanneae* A.O.R.

3.3 mi. ESE, 2130 hrs, 11.1°C, *Hyla meridionalis* seen A.O.R.

3.3 mi. ESE, 2130 hrs, 11.1°C, *Bufo spinosus*  (CMFS 19253-19270; CM 53883[18]) collected.

3.4 mi. ESE, 2132 hrs, 12.2°C, *Bufo spinosus*  (CMFS 19253-19270; CM 53883[18]) collected.

3.4 mi. ESE, 2132 hrs, 12.2°C, *Discoglossus g. jeanneae* A.O.R..

3.7 mi. ESE, 2135 hrs, 11.1°C, *Bufo spinosus*  (CMFS 19253-19270; CM 53883[18]) collected

A.O.R..

4.5 mi. ESE, *Bufo spinosus* (CMFS 19253-19270; CM 53883[18]) collected D.O.R..

5.1 mi. ESE, *Bufo spinosus* (CMFS 19253-19270; CM 53883[18]) collected A.O.R..

5.3 mi. ESE, juvenile *Bufo spinosus*  (CMFS 19253-19270; CM 53883[18]) collected.

2145 hrs, rain started again.

5.4 mi. ESE, 2146 hrs, 11.7°C, 2 juvenile *Bufo spinosus*

5.5 mi. ESE, juvenile *Bufo spinosus* (CMFS 19253-19270; CM 53883[18]) collected.

6.2 mi. ESE, 2154 hrs, 10.6°C, *Bufo spinosus* (CMFS 19253-19270; CM 53883[18]) collected

A.O.R..

6.3 mi. ESE, *Bufo spinosus* (CMFS 19253-19270; CM 53883[18]) collected.

**1970, 8 October, Los Barrios, (N36.18209 W5.48920), C-440**

6.5 mi. WNW, *Bufo spinosus*  D.O.R..

3.1 mi. WNW, 2217 hrs, 11.1°C, *Discoglossus g. jeanneae* A.O.R.(CMFS 19271-19277; UCM

44929- 44934; CM 53884a-d, PARATYPES, *Discoglossus jeanneae*).

2.6 mi. WNW, *Discoglossus g. jeanneae* A.O.R.

2.6 mi. WNW, 2220 hrs, 11.1°C, *Hyla meridionalis* (CMFS 19252; CM 53882) collected A.O.R..

**1970, 10 October, La Algaida (N36.862136 W6.302683)**

1215 hrs, 17.8°C.

1221 hrs, juvenile *Acanthodactylus erythrurus* shot while sunning in pine needle area of

*Halimium halimiifolium* and *Juniperus phoenicea*.

**1970, 10 October, La Algaida (N36.862136 W6.302683) -2-**

1224 hrs, juvenile *Acanthodactylus erythrurus* in *Juniperus phoenicea*.

1226 hrs, juvenile *Acanthodactylus erythrurus* shot in *Juniperus phoenicea*.

1228 hrs, sub-adult *Acanthodactylus erythrurus* in *Juniperus phoenicea*.

1229 hrs, *Acanthodactylus erythrurus* in open sand.

1230 hrs, juvenile *Acanthodactylus erythrurus* shot in *Juniperus phoenicea*.

1232 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

1238 hrs, juvenile *Acanthodactylus erythrurus* in *Juniperus phoenicea*.

1241 hrs, adult *Acanthodactylus erythrurus* shot in *Juniperus phoenicea*.

1243 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

1245 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

1247 hrs, (± 18.5°C) 2 juvenile *Psammodromus algirus* in *C*or*ema album*.

1249 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

1253 hrs, juvenile *Acanthodactylus erythrurus* shot travelling thru open sand.

1257 hrs, adult *Acanthodactylus erythrurus* shot in *C*or*ema album*.

1258 hrs, juvenile *Acanthodactylus erythrurus*, juvenile *Psammodromus algirus* in *C*or*ema*

*album*.

1301 hrs, juvenile *Acanthodactylus erythrurus* in *Juncus acutus* and juvenile *Pinus pinea*.

1303 hrs, *Acanthodactylus erythrurus* in *C*or*ema album*.

1305 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

1307 hrs, *Acanthodactylus erythrurus* sunning under *C*or*ema album*.

1309 hrs, *Acanthodactylus erythrurus* active in open sand.

1323 hrs, 19.4°C.

1325 hrs, adult *Acanthodactylus erythrurus* active in *Halimium halimiifolium*/*Juniperus*

*phoenicea* area.

1331 hrs, adult *Acanthodactylus erythrurus* sunning in open sand.

1336 hrs, adult *Acanthodactylus erythrurus* shot in *C*or*ema album*.

1337 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

1339 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

1341 hrs, (~ 19.2°C) juvenile *Psammodromus algirus* in *C*or*ema album*.

1344 hrs, *Acanthodactylus erythrurus* shot in *C*or*ema album*.

1347 hrs, juvenile *Acanthodactylus erythrurus* in open sand.

1350 hrs, juvenile *Acanthodactylus erythrurus* in open sand and *C*or*ema album*.

1354 hrs, adult *Acanthodactylus erythrurus* seen in *C*or*ema album*, 1 shot.

1357 hrs, adult *Acanthodactylus erythrurus* in *C*or*ema album*.

1401 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album* and *Juniperus phoenicea* area.

1405 hrs, juvenile *Acanthodactylus erythrurus* in *Juniperus phoenicea*.

1406 hrs, adult *Acanthodactylus erythrurus* shot while sunning in area of *Juniperus phoenicea*.

1410 hrs, adult *Acanthodactylus erythrurus* shot while foraging in the vicinity of *Pinus pinea* and

*Halimium halimiifolium*.

1412 hrs, 2 sub-adult *Acanthodactylus erythrurus* in *Halimium halimiifolium* area of open sand.

1419 hrs, juvenile *Acanthodactylus erythrurus* in open sand.

1420 hrs, juvenile *Acanthodactylus erythrurus* in open sand.

1423 hrs, juvenile *Acanthodactylus erythrurus* shot in *Halimium halimiifolium* and *Juncus acutus*

area.

1427 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

**1970, 10 October, La Algaida (N36.862136 W6.302683) -3-**

1429 hrs, juvenile *Acanthodactylus erythrurus* in *Juniperus phoenicea.*

1432 hrs, adult *Acanthodactylus erythrurus* in *C*or*ema album*.

1439 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

1442 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

1447 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

1456 hrs, juvenile *Acanthodactylus erythrurus* Shot in open sand.

1459 hrs, juvenile *Acanthodactylus erythrurus* Shot in *Halimium halimiifolium, Cistus crispus* area.

1515 hrs, 18.9°C.

1520 hrs, juvenile *Acanthodactylus erythrurus* shot in needles of *Pinus pinea* in open sand

1531 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

1534 hrs, sub-adult *Acanthodactylus erythrurus* in *C*or*ema album*.

1539 hrs, adult *Acanthodactylus erythrurus* Shot in *C*or*ema album*.

1539 hrs, juvenile *Acanthodactylus erythrurus* in *Juniperus phoenicea*.

1545 hrs, *Acanthodactylus erythrurus* Shot in *Halimium halimiifolium, Juncus acutus* area.

1547 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

1550 hrs, juvenile *Acanthodactylus erythrurus* Shot in open sand of *C*or*ema album* area.

1553 hrs, juvenile *Acanthodactylus erythrurus* in open sand/ *Halimium halimiifolium* area.

1556 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album* area.

1559 hrs., sub-adult *Acanthodactylus erythrurus* shot while sunning under *C*or*ema album*.

1601 hrs, *Acanthodactylus erythrurus* shot under *Halimium halimiifolium* in direct sun.

1607 hrs, juvenile *Acanthodactylus erythrurus* shot in open sand near *C*or*ema album* and

*Juniperus phoenicea*.

1610 hrs, *Acanthodactylus erythrurus* in *Juniperus phoenicea*.

1613 hrs, 2 adult *Acanthodactylus erythrurus* in *C*or*ema album*.

1616 hrs, 2 juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

1619 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

1629 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

1634 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

1636 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

1638 hrs, juvenile *Acanthodactylus erythrurus* shot in *Juniperus phoenicea*.

1642 hrs, adult *Psammodromus algirus* in *Juniperus phoenicea*.

1644 hrs, (~ 18.9°C) juvenile *Psammodromus algirus* shot in *Cistus crispus* at base of *Pinus pinea*.

1650 hrs, adult *Acanthodactylus erythrurus* shot in *Chamaerops humilis* (only one specimen of

this plant in area).

1712 hrs, 18.9°C.

1720 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

1800 hrs, 17.2°C, end.

*Acanthodactylus erythrurus* (CMFS 19278-19289; CM 53885[12]);

juvenile *Acanthodactylus erythrurus* (CMFS 19290 [25]; CM 53886[25]).

*Psammodromus algirus* (CMFS 19291; CM 53887).

**1970, 11 October, La Algaida (N36.862136 W6.302683)**

±0740 hrs, sunrise, 0830 hrs, 7.8°C, 0910 hrs, 11.1°C.

0922 hrs, *Psammodromus algirus* shot in sun under *Myrtus communis* near *Pistacia lentiscus*;

ground cover consists of *Pinus pinea* needles.

0928 hrs, (~ ± 12.9°C)juvenile *Psammodromus algirus* in low shrubbery and *Pinus pinea* needles.

0952 hrs, (~ ± 13.9°C) 2 juvenile *Psammodromus algirus* active in *C*or*ema album*.

0955 hrs, juvenile *Acanthodactylus erythrurus* shot while sunning under *C*or*ema album*.

0958 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

1002 hrs, juvenile *Acanthodactylus erythrurus* shot in open sand near *Halimium*

*halimiifolium*/*C*or*ema album* area.

1004 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

1027 hrs, 16.1°C.

1038 hrs, sub-adult *Acanthodactylus erythrurus* in *Juniperus phoenicea*.

1043 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

1045 hrs, juvenile *Acanthodactylus erythrurus* shot in open sand near *C*or*ema album*.

1050 hrs, (~ ± 17.0°C) juvenile *Psammodromus algirus* in *C*or*ema album*.

1052 hrs, juvenile *Acanthodactylus erythrurus* shot under *C*or*ema album* while sunning.

1055 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

1058 hrs, juvenile *Acanthodactylus erythrurus* in *Juniperus phoenicea*.

1101 hrs, (~ ± 17.5°C) juvenile *Psammodromus algirus* sunning in *C*or*ema album*.

1105 hrs, (~ ± 17.6°C) 3juvenile *Acanthodactylus erythrurus* in open sand area, 1 shot.

1107 hrs, *Psammodromus algirus in* *C*or*ema album*.

1111 hrs, juvenile *Acanthodactylus erythrurus* in *Halimium halimiifolium* area.

1116 hrs, *Psammodromus algirus in* *Halimium halimiifolium* area.

1123 hrs, 18.3°C.

1136 hrs, juvenile *Acanthodactylus erythrurus* shot in *Halimium halimiifolium*/*Juniperus*

*phoenicea* area.

1139 hrs, juvenile *Acanthodactylus erythrurus* shot in open sand area of *Juniperus phoenicea*.

1142 hrs, juvenile *Acanthodactylus erythrurus* shot in open sand area of *Juniperus phoenicea*.

1144 hrs, juvenile *Acanthodactylus erythrurus* shot in *C*or*ema album*.

1145 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

1147 hrs, juvenile *Acanthodactylus erythrurus* in *Juniperus phoenicea*.

1151 hrs, juvenile *Acanthodactylus erythrurus* in open sand.

1153 hrs, juvenile *Acanthodactylus erythrurus* shot in open sand.

1155 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

1157 hrs, juvenile *Acanthodactylus erythrurus* in open sand.

1158 hrs, 2 juvenile *Acanthodactylus erythrurus* in open sand.

1201 hrs, juvenile *Acanthodactylus erythrurus* shot in open sand.

1204 hrs, adult *Acanthodactylus erythrurus* shot in open sand.

1205 hrs, adult *Acanthodactylus erythrurus* shot in open sand in vicinity of *C*or*ema album*.

1210 hrs, 3 sub-adult *Acanthodactylus erythrurus* in area of *Halimium halimiifolium* and

*Juniperus phoenicea*.

1213 hrs, juvenile *Acanthodactylus erythrurus* in vicinity of *Juniperus phoenicea*.

1215 hrs, adult *Acanthodactylus erythrurus* in area of *Juniperus phoenicea*.

1216 hrs, (~ ±19.9°C) juvenile *Psammodromus algirus* in *Juniperus phoenicea*.

1220 hrs, adult *Psammodromus algirus in* *Halimium halimiifolium*/*Cistus crispus* area.

1227 hrs, adult *Acanthodactylus erythrurus* shot in *Halimium halimiifolium*.

1230 hrs, 20.6°C, end.

*Acanthodactylus erythrurus* (CMFS 19292-19294; CM 53888-53890.

Juvenile *Acanthodactylus erythrurus* (CMFS 19290 [25]; CM 53886[25]). *Psammodromus algirus* (CMFS 19295; CM 53891).

1410 hrs, juvenile *Acanthodactylus erythrurus* on exit road.

**1970, 11 October, La Algaida- Sanlúcar de Barrameda-Arcos de la Frontera- El Bosque- Villaluenga del Rosario-Grazalema-Zahara-Algodonales-Villamartín.**

1400 hrs-2200 hrs.

**1970, 11 October, Sanlúcar de Barrameda,**(**N36.77025 W6.34666), C-440**

8.5 mi. ESE on Jerez road, 1445 hrs, 21.1°C, juvenile *Malpolon monspessulanus* D.O.R..

**1970, 11 October, Arcos de la Frontera, (N36.75559 W5.82017), N-342 (A-382)**

7.6 mi. W, 1515 hrs, *Timon lepidus* D.O.R..

7.4 mi. E (N36.75313 W5.68579, 155 m), 1542 hrs-1611 hrs, 22.2°C-21.1°C, in a heavily overgrown area of *Quercus coccifera*, *Cistus crispus*, with *Ulex* sp. and *Chamaerops humilis* and some *Lygos monosperma* (4 *Quercus suber* in area); 2 *Podarcis vaucheri* (CMFS 19297; CM 53893) on old bridge, 1 captured. Juvenile *Psammodromus algirus*(CMFS 19296; CM 53892) captured under small, loosely fixed rock.

**1970, 11 October, El Bosque, (N36.75819 W5.50904), C-344**

11.4 mi. W, 2 *Hem*or*rhois hippocrepis* shedskins at base of bridge. *Lygos monosperma* quite common here.

**1970, 11 October, Villaluenga del Rosario, (N36.69571 W5.38678), C-3331**

2.3 mi. NW, large *Bufo spinosus* D.O.R..

**1970, 11 October, Grazalema, (N36.76188 W5.36330), (C-344, A-372)**

1.2 mi. E, 1808 hrs, 13.3°C, *C*or*onella girondica* (CMFS 19298; CM 53894 ) D.O.R..

**1970, 11 October, Zahara de la Sierra**

1.7 mi. S, 1915 hrs, Or*yctolagus* sp.or *Lepus* sp. at sunset.

**1970, 11 October, Algodonales (~N36.87727 W5.39928)**

1930 hrs, 15.6°C, *Pelophylax perezi* D.O.R..

**1970, 11 October, Villamartín, (N36.85870 W5.63933), N-342**

2.3 mi. NW, 2020 hrs, 14.4°C, *Epidalea calamita* (CMFS 19299; CM 53895) collected A.O.R..

**1970, 13 October, Sanlúcar de Barrameda-La Algaida-Sanlúcar-Chipiona-Rota**

1930 hrs-2100 hrs, 17.8°C-16.7°C.

**1970, 13 October, La Algaida (N36.862136 W6.302683)**

2007 hrs, 16.7°C, *Epidalea calamita* (CMFS 19301; CM 53897) collected on dirt entrance road.

**1970, 13 October, Rota, (N36.62899 W6.35430)**

2.3 mi. WNW, 2100 hrs, 17.2°C, *Pelobates cultripes* (CMFS 19300; CM 53896) collected A.O.R..

**1970, 16 October, Puerto de Santa Maria-Jerez de la Frontera-La Barca de la Florida-San José del Valle-Tempul-Sierra del Aljibe-Alcalá de los Gazules-Galis-Alcalá-Casas del Castaño-Los Barrios-Algeciras-Tarifa-Vejer-Chiclana de la Frontera**

1300 hrs-2328 hrs.

**1970, 16 October, Tempul, CA-503 (N36.63853 W5.67598)**

6.0 mi. ESE, 1415 hrs, 23.9°C, juvenile *Timon lepidus* A.O.R..

**1970, 16 October, Sierra del Aljibe (~N36.53576 W5.65072)**

1530 hrs-1625 hrs, 21.1°C, collected in area of *Ulex*, *Quercus suber*, *Quercus coccifera*, and no *Vipera* were noted. Juvenile *Psammodromus algirus* collected, 5 scorpions seen but not taken.

**1970, 16 October, Alcalá de Los Gazules, (N36.44084 W5.72006), C-440**

0.8 mi. N, *Hem*or*rhois hippocrepis* D.O.R..

**1970, 16 October, Galis (417 M), (N36.55958 W5.60101), (C-3331)**

3.8 mi. NE, 1800 hrs-1845 hrs, 16.7°C, surveyed *Pinus* area with *Ulex* and much granite. 1 *Salamandra longirostris* (CMFS 19306; CM 53902) collected deep under granite in *Pinus* needles and muck soil about 1815 hrs.

**1970, 16 October, Alcalá de Los Gazules, (N36.43994 W5.71962), C-440**

6.8 mi. ESE on C-440, 2050 hrs, 17.8°C, *Natrix maura* D.O.R..

7.2 mi. ESE, 2050 hrs, 17.8°C, *Pelobates cultripes* (CMFS 19304; CM 53900) collected A.O.R..

7.7 mi. ESE, sub-adult *Hem*or*rhois hippocrepis* D.O.R..

**1970, 16 October, Casas del Castaño, (N36.30792 W5.59662), C-440**

9.5 mi. WNW, 2130 hrs, 17.2°C, *Hyla meridionalis* (CMFS 19305; CM 53901) A.O.R..

7.2 mi. WNW, 2132 hrs, 16.7°C, *Bufo spinosus*  (CMFS 19302-19303; CM 53898-53899)

collected.

6.4 mi. WNW, 2142 hrs, 16.7°C, *Rhinechis scalaris* (CMFS 19307; CM 53903) collected A.O.R..

4.5 mi. WNW, 2150 hrs, 16.7°C, *Bufo spinosus*  (CMFS 19302-19303; CM 53898-53899)

collected A.O.R..

2.6. mi. WNW, *Discoglossus g. jeanneae* D.O.R..

**1970, 16 October, Tarifa, (N36.02652 W5.60407), N-340**

5.8 mi. NW, 2245 hrs, 17.8°C, *Natrix maura* fresh D.O.R..

**1970, 17 October, Puerto de Santa Maria-Puerto Real-Chiclana-Vejer-Facinas-Los Barrios-Jimena de la Frontera-(Málaga Province) Ventorrillo de las Cañillas-Galis-Tempul-San José del Valle-Jerez de la Frontera**: 1000 hrs-1900 hrs, 20.0°C, overcast.

**1970, 17 October, Vejer de la Frontera, (N36.26089 W5.96476), N-340**

1.3 mi. NW, 1054 hrs, 21.1°C, *Natrix natrix* (CMFS 19308; CM 53904) D.O.R..

**1970, 17 October, Facinas, (N36.14768 W5.70281), CA-221**

5.3 mi. ENE, 1141 hrs, 19.4°C, 2 *Podarcis vaucheri* (CMFS 19311-19317; CM 53907[7]), one

shot off bridge.

6.0 mi. ENE, 1153 hrs, 18.3°C, *Pelophylax perezi* in stream beneath bridge.

6.6 mi. ENE, 1200 hrs-1218 hrs, in area under bridge one black beetle picked up under rock (ES

289; Coleoptera, Carabidae, CM accession 24743).

**1970, 17 October, Facinas, (N36.14768 W5.70281), CA-221 -2-**

6.6 mi. ENE, 1221 hrs, 14.4°C, juvenile *Timon lepidus* (CMFS 19309; CM 53905) shot off rock.

7.4 mi. ENE, 2 *Bufo spinosus* D.O.R..

8.2 mi. ENE, 1246 hrs, 18.9°C, *Macroprotodon brevis* (CMFS 19310; CM 53906) in culvert

along with ES 290 (Large spider) and ES 291 (millipede) CM accession 24743.

8.8 mi. ENE *Bufo spinosus*  D.O.R..

12.4 mi. ENE, *Bufo spinosus*

13.4 mi. ENE, 1430 hrs, 23.9°C, *Tarentola mauritanica* (CMFS 19318-19320; CM 53908-

53910) shot.

13.7 mi. ENE, 1435 hrs, 25.0°C, *Tarentola mauritanica* shot off bridge abutment.

14.1 mi. ENE, 1445 hrs, 25.6°C, 2 *Podarcis vaucheri* (CMFS 19311-19317; CM 53907[7]) shot

off bridge.

14.3 mi. ENE (N36.20548, W5.54337, 20 m), 1459 hrs, 24.4°C, adult *Tarentola mauritanica* (CMFS 19318-19320; CM 53908-53910) shot. (*Psammodromus algirus* (CMFS 19321; CM 53911) also probably from here – no record in field book)

1503 hrs, 22.2°C, 2 *Tarentola mauritanica* not collected.

**1970, 17 October, Jimena de la Frontera, (N36.43890 W5.44437), C-3331**

1.8 mi. NW, 1608 hrs, 21.1°C, *Podarcis vaucheri* (CMFS 19311-19317) shot from bridge, 1.8 mi. NW, 1608 hrs, 21.1°C, *Psammodromus algirus* seen.

3.0 mi. NW, 1620 hrs, 23.3°C, *Podarcis vaucheri*  (CMFS 19311-19317; CM 53907[7])

shot from stone wall.

4.0 mi. NW, well-patterned *Hem*or*rhois hippocrepis* epidermis found (freshly shed).

5.3 mi. NW, 1645 hrs, 23.9°C, *Podarcis vaucheri* (CMFS 19311-19317; CM 53907[7]) shot, one

observed on granite rock formation.

6.5 mi. NW, 1655 hrs, 23.3°C, *Podarcis vaucheri*, not collected.

6.6 mi. NW, 1700 hrs, 23.9°C, *Podarcis vaucheri* shot (CMFS 19311-19317; CM 53907[7]) . 2

*Pinus* sp*.* in area.

6.7 mi. NW, *Pinus* are also noted.

**Provincia de Málaga**

### 1970, 17 October, Ventorrillo de las Cañillas, (N36.505419 W5.521247), C-3331

3.2 mi. NW is a fringe area of *Pinus* sp.

3.3. mi. NW, pine forest begins.

3.4 mi. NW, KM 40, is heavy *Pinus* area.

3.6 mi. NW, *Pinus* disappear once again.

3.9 mi. NW, KM 39.

0.8 mi. SE of Galis, Aljibe is on left (0.1 mi. SE of Cádiz Province line).

**Provincia de Cádiz**

**1970, 18 October, Rota-Jerez de la Frontera-La Barca de la Florida-San José del Valle-Tempul-Galis (417 M)-KM 30-Prov. de Málaga-Aljibe and return**

0945 hrs-1830 hrs, clear and sunny, 18.9°C.

**1970, 18 October, Galis, (N36.55958 W5.60101), C-3331**

0.7 mi. ESE, 1206 hrs, 20.6°C, no *Pinus* noted at top of rock outcroppings; 2 millipedes (ES

292), 1 centipede (ES 293), and 1 scorpion (ES 297; Buthidae, *Buthus occitanus*).

0.7 mi. ESE (N36.56342 W5.61156, 338 m), 1206 hrs, 20.6°C, a *Psammodromus algirus* (CMFS 19325; CM 53915) also collected.

5.8 mi. ESE, and I’m in an area of *Pinus*.

5.9 mi. SE, 1238 hrs-1414 hrs, 23.3°C, series of scorpions taken in area mainly composed of

*Pinus* sp., *Quercus suber*, *Juniperus phoenicea*, *Lavandula stoechas*, *Ulex* sp. at KM 40.

5.4 mi. SE, 1420 hrs, 25.6°C, 2 *Podarcis vaucheri* (CMFS 19322-19324; CM 53912-53914) shot

from bridge.

5.5 mi. SE, 1430 hrs, 27.8°C, *Podarcis vaucheri* (CMFS 19322-19324; CM 53912-53914) shot

from bridge.

3.7 mi. NE on C-3331 at KM 54, 1458 hrs-1710 hrs, 21.1°C, in a *Pinus* area 2 scorpions, 2 large

black spiders (ES 295), 1 centipede (ES 294), and 10 ants (ES 296) taken.

3.7 mi. NE on C-3331 at KM 54, 1458 hrs-1710 hrs, 21.1°C, *Pinus* area, *Psammodromus algirus*

seen.

**1970, 24 October, La Algaida (N36.862136 W6.302683)**

1230 hrs, 21.1°C.

1242 hrs, juvenile *Acanthodactylus erythrurus* shot in *C*or*ema album*.

1247 hrs, juvenile *Acanthodactylus erythrurus* shot in *C*or*ema album*. “Darning needles”

(“Darners”, Aeshnidae in North America) quite common.

1258 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

1305 hrs, 2 juvenile *Acanthodactylus erythrurus* in *Juniperus phoenicea* and *C*or*ema album*.

1307 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

1310 hrs, juvenile *Acanthodactylus erythrurus* in *Juniperus phoenicea*.

1314 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

1317 hrs, juvenile *Acanthodactylus erythrurus* shot in *C*or*ema album*.

1320 hrs, juvenile *Acanthodactylus erythrurus* shot in *C*or*ema album*.

1322 hrs, sub-adult *Acanthodactylus erythrurus* shot in *C*or*ema album*.

**1970, 24 October, La Algaida (N36.862136 W6.302683) -2-**

1325 hrs, juvenile *Acanthodactylus erythrurus* shot in open sand.

1326 hrs, adult *Acanthodactylus erythrurus* shot in open sand.

1329 hrs, adult *Acanthodactylus erythrurus* shot in open sand.

1332 hrs, adult *Acanthodactylus erythrurus* shot and juvenile seen in *C*or*ema album*.

1335 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

1337 hrs, juvenile *Acanthodactylus erythrurus* shot in *C*or*ema album*.

1343 hrs, adult *Acanthodactylus erythrurus* in *Juniperus phoenicea*.

1345 hrs, adult *Acanthodactylus erythrurus* shot in *Halimium halimiifolium*.

1353 hrs, juvenile *Acanthodactylus erythrurus* shot, 2 seen.

1400 hrs, 23.3°C.

1415 hrs, 23.3°C.

1431 hrs, juvenile *Acanthodactylus erythrurus* shot in *C*or*ema album*.

1435 hrs, juvenile *Acanthodactylus erythrurus* in open sand.

1437 hrs, juvenile *Acanthodactylus erythrurus* in *Juniperus phoenicea*.

1440 hrs, juvenile *Acanthodactylus erythrurus* shot in *C*or*ema album*.

1441 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

1442 hrs, juvenile *Acanthodactylus erythrurus* shot in *C*or*ema album*.

1446 hrs, adult *Acanthodactylus erythrurus* in *C*or*ema album*.

1450 hrs, juvenile *Acanthodactylus erythrurus* shot in *Juniperus phoenicea*.

1452 hrs, sub-adult *Acanthodactylus erythrurus* shot in *Juniperus phoenicea*.

1453 hrs, juvenile *Acanthodactylus erythrurus* shot in *C*or*ema album.* Or*yctolagus* or *Lepus*

seen under *Juniperus phoenicea*.

1455 hrs, adult *Acanthodactylus erythrurus* in *Juniperus phoenicea*.

1458 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

1501 hrs, juvenile *Acanthodactylus erythrurus* shot in *Juncus acutus*.

1502 hrs, juvenile *Acanthodactylus erythrurus* shot in *Halimium halimiifolium* area.

1504 hrs, 2 juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

1506 hrs, juvenile *Acanthodactylus erythrurus* shot in *C*or*ema album*.

1520 hrs, 22.8°C, end.

*Acanthodactylus erythrurus* = CMFS 19326 (15), 19327-19334 (CM 53916[23]).

**1970, 25 October, Jerez de la Frontera-La Barca de la Florida-San José del Valle-Alcalá de Los Gazules-Puerto Real**

1200 hrs-1530 hrs.

**1970, 25 October, San José del Valle, (N36.60342 W5.79594), CA-5200**

8 km. S, 1257 hrs, 23.3°C, adult *Timon lepidus* (CMFS 19335-19337; CM 53917-53919) found

under rock at road shoulder.

10 km. S, 1330 hrs-1345 hrs, 2 *Timon lepidus* (CMFS 19335-19337; CM 53917-53919) found

under rocks, 1 sub-adult, 1 adult also observed.

9 km. N, 1400 hrs-1415 hrs, in area of no cover but annual grasses, *Carlina racemosa*, and many

small rocks scorpions and centipedes seen – nothing collected.

**1970, 26 October, Puerto Real, from N-IV at ~N36.53761 W6.16818 to C-440 via A-408**

2100 hrs-2200 hrs [W. R. Maxwell and me].

*Malpolon monspessulanus* (CMFS 19338; CM 53920) collected D.O.R., *Rhinechis scalaris* (CMFS 19339; CM 53921) collected A.O.R..

**1970, 29 October, Rota (N36.62899 W6.35430)-Chipiona (N36.70769 W6.41560) Road**

2000 hrs-2120 hrs.

**1970, 29 October, Rota, (N36.62899 W6.35430)**

5 KMS NW, 2032 hrs, 2 *Pelobates cultripes* (CMFS 19340-19342; CM 53922-53924) collected A.O.R..

7 KMS NW, 2103 hrs, *Pelobates cultripes* (CMFS 19340-19342; CM 53922-53924) collected A.O.R..

**1970, 29 October, Chipiona, (N36.70769 W6.41560)**

4 km. SE, 2045 hrs, *Epidalea calamita* (CMFS 19343-19344; CM 53925-53926) collected.

5 km. SE, 2103 hrs, *Epidalea calamita* (CMFS 19343-19344; CM 53925-53926) collected.

**1970, 01 November, Naval Base-Puerto de Santa Maria-Puerto Real-Chiclana de la Frontera-Vejer de la Frontera-Facinas-Los Barrios-Casas del Castaño-Alcalá de los Gazules-Puerto Real**: 1200 hrs-2145 hrs, 23.9°C.

**1970, 01 November, Facinas, (N36.14768 W5.70281), CA-221**

8 km. ENE, 1357 hrs, 22.2°C, 3 *Podarcis vaucheri*, one collected (CMFS 19345-19349; CM

54203-54207).

8 km. ENE, 1357 hrs, 22.2°C, *Tarentola mauritanica*

9 km. ENE, 1406 hrs, 2 *Tarentola mauritanica* shot at bridge (CMFS 19350-19355; CM 54208-

54213), both were sunning. A juvenile about 2.5 cm long was taken. Color: generally

murkish brown with darker brown bands, venter patternless and grey, chin speckled, arms

speckled grey and specimens look pretty much like adults for coloration (see diagram, p.

123).

13 km. ENE, 1425 hrs, 21.1°C, *Timon lepidus* (CMFS 19356; CM 54214) collected from a hole

in a sand bank. *Quercus suber* basic vegetation with little undergrowth. *Pistacia*

*lentiscus*, *Cistus crispus*, and other plants in area.

15 km. ENE, 1448 hrs, 21.1°C, 5 *Podarcis vaucheri* (CMFS 19345-19349; CM

54203-54207), one captured.

15 km. ENE, 1448 hrs, 21.1°C, *Tarentola mauritanica* seen.

16 km. ENE, 1456 hrs, 4 *Podarcis vaucheri* (CMFS 19345-19349; CM 54203-54207), one captured.

16 km. ENE, 1456 hrs, *Tarentola mauritanica* (CMFS 19350-19355; CM 54208-54213) taken from bridge during intermittent sunshine.

16 km. ENE, 1500 hrs, 2 *Podarcis vaucheri*, one shot (CMFS 19345-19349; CM 54203-54207).

16 km. ENE, 1506 hrs, *Podarcis vaucheri.*

19 km. ENE, 1524 hrs, *Podarcis vaucheri* on retaining wall.

20 km. ENE, 1530-1537 hrs, 21.1°C, *Podarcis vaucheri* taken (CMFS 19345-19349; CM 54203-

54207) from bridge.

**1970, 01 November, Facinas, (N36.14768 W5.70281), CA-221 -2-**

20 km. ENE, 1530-1537 hrs, 21.1°C, *Tarentola mauritanica* taken from bridge (CMFS 19350-

19355; CM 54208-54213).

21 km. ENE, 1552 hrs, 20.0°C, a *Tarentola mauritanica* taken from culvert wall (CMFS 19350-

19355; CM 54208-54213), one sub-adult seen.

21 km. ENE, 1555 hrs, 22.2°C, bridge wall yielded *Tarentola mauritanica* while another was

noted but not captured.

1700 hrs-1850 hrs, lost time for lunch, etc.

**1970, 01 November, Casas del Castaño, (N36.30792 W5.59662), C-440**

11 km. SE, 1905 hrs, *Bufo spinosus*  (CMFS 19357; CM 54215) collected A.O.R..

11 km. SE, 1906 hrs, *Hyla meridionalis* A.O.R. but not collected.

**1970, 01 November, Alcalá de los Gazules, (N36.44084 W5.72006), C-440**

5 km. NW, *Timon lepidus* D.O.R..

**1970, 01 November, Puerto Real, from N-IV at ~N36.53761 W6.16818 to C-440 via A-408**

17 km. E, 2052 hrs, *Rhinechis scalaris* (CMFS 19358; CM 54216) collected A.O.R..

**1970, 03 November, Puerto Real-Medina Sidonia-Puerto Real**: 2130 hrs-2230 hrs (approx.).

W. R. Maxwell and I surveyed the roads with no specimens observed.

**1970, 05 November, Puerto de Santa Maria-Puerto Real-Medina Sidonia-Chiclana de la Frontera-Puerto Real-Puerto de Santa Maria**

**1970, 05 November, Puerto de Santa Maria (= Valdelagrana, N36.57945 W6.22406)**

1.8 mi. ESE, 1730 hrs-1830 hrs, moisture level very low in *Juncus acutus* area and only a few arthropods were seen. One *Malpolon monspessulanus* shed skin seen, 21.1°C.

**1970, 05 November, Puerto Real, from N-IV at ~N36.53761 W6.16818 to C-440 via A-408**

10 km. E, 1907 hrs, *Malpolon monspessulanus* (CMFS 19363; CM 54221) fresh D.O.R..

**1970, 06 November, Naval Base-Sanlúcar de Barrameda (La Algaida)**

1348 hrs-1830 hrs, 23.9°C.

**1970, 06 November, Base Naval de Rota, Horse stables area (N36.632612 W6.319889)**

1348 hrs, *Chamaeleo chamaeleon* (CMFS 19359; CM 54217) collected A.O.R.. Area directly

adjacent contains *Lygos monosperma* and *Pinus pinea*.

1500 hrs, 24.4°C.

1512 hrs, adult *Acanthodactylus erythrurus* in *Juniperus phoenicea*.

1515 hrs, 3 juvenile *Acanthodactylus erythrurus* seen, 1 shot in *C*or*ema album*.

1521 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*/*Juniperus phoenicea* area.

1526 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

1529 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

1542 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

**06 November, La Algaida (N36.862136 W6.302683)**

1546 hrs, juvenile *Acanthodactylus erythrurus* shot in *C*or*ema album*.

1556 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album* in *Pinus pinea* ecotonal area.

1610 hrs, 23.3°C.

1620 hrs, *Psammodromus algirus in* *Juniperus phoenicea* (ecotone area).

1629 hrs, juvenile *Acanthodactylus erythrurus* shot in sun in the vicinity of *C*or*ema album*.

1725 hrs, 20.0°C, end.

*Acanthodactylus erythrurus* = CMFS 19360-19362 (CM 54218-54220).

**1970, 06 November, Sanlúcar de Barrameda**

16 km. N+E just outside La Algaida (N36.89911 W6.29295), 1742 hrs, *Rhinechis scalaris* fresh D.O.R.. 23 cm TL and ~30 m from brackish water (roadway indicated on Garmin map at this point used to parallel an irrigation canal; irrigation = river, artificial).

**1970, 07 November, La Algaida (N36.862136 W6.302683)**

Overcast and cool.

0840 hrs, 10.6°C, no sun.

0922 hrs, 12.8°C.

Mosquitoes are presently unbearable and nothing was collected from 0840 hrs-0922 hrs; nor was anything seen.

**1970, 09 November, Chipiona (General) (N36.73129 W6.42885)**

*Hemorrhois hippocrepis* (CMFS 19364; CM 54222) Donated: V. E. Martin

**1970, 12 November, La Algaida (N36.862136 W6.302683)**

0937 hrs-1522 hrs.

0937 hrs, 11.1°C.

1019 hrs, 13.3°C.

1100 hrs, 15.6°C.

1107 hrs, 15.6°C.

1147 hrs, juvenile *Acanthodactylus erythrurus* shot in *C*or*ema album* while basking in sun.

1159 hrs, juvenile *Acanthodactylus erythrurus* in open sun in the vicinity of *Juniperus*

*phoenicea*.

1213 hrs, 18.9°C.

1237 hrs, juvenile *Acanthodactylus erythrurus* shot in *C*or*ema album* while sunning.

1245 hrs, juvenile *Acanthodactylus erythrurus* shot in *C*or*ema album* area.

1250 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

1301 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

1305 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

1310 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

1314 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

1316 hrs, juvenile *Acanthodactylus erythrurus* shot in *C*or*ema album*.

1319 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

1330 hrs, 21.7°C.

1344 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

**1970, 12 November, La Algaida (N36.862136 W6.302683) -2-**

1347 hrs, juvenile *Acanthodactylus erythrurus* shot in open sand.

1352 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

1357 hrs, juvenile *Acanthodactylus erythrurus* shot in *C*or*ema album*.

1405 hrs, juvenile *Acanthodactylus erythrurus* shot in *Juniperus phoenicea*.

1410 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*/*Halimium halimiifolium*.

1412 hrs, juvenile *Acanthodactylus erythrurus* shot in *C*or*ema album* area.

1414 hrs, juvenile *Acanthodactylus erythrurus* in *Juniperus phoenicea*.

1420 hrs, juvenile *Acanthodactylus erythrurus* in *Cistus crispus*/*Halimium halimiifolium*.

1424 hrs, Skin of *Malpolon monspessulanus* seen shed under branch of *Juniperus phoenicea*.

1437 hrs, juvenile *Acanthodactylus erythrurus* in open sand.

1441 hrs, juvenile *Acanthodactylus erythrurus* shot in *Halimium halimiifolium*.

1442 hrs, 23.9°C.

1458 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

1504 hrs, adult *Acanthodactylus erythrurus* shot in *C*or*ema album*.

1514 hrs, adult *Acanthodactylus erythrurus* shot in *Juniperus phoenicea*.

1522 hrs, 22.8°C.

*Acanthodactylus erythrurus* (CMFS 19365-19367[10]; CM 54223[12]) .

**1970, 12 November, Rota-Puerto de Santa María area (CA-603; =A-491), between N36.63351 W6.30550 and N36.61149 W6.23976, 10 M - 48 M**). Maxwell collection.

*Natrix maura* (CMFS 19368; **CM 54224**)

*Pelobates cultripes* (CMFS 19369-19372; CM 54225-54228)

*Epidalea calamita* (CMFS 19373; CM 54229)

**1970, 14 November, Puerto de Santa Maria-Chiclana-Vejer-Facinas-Los Barrios-Algeciras-Tarifa-Puerto Real**

1310 hrs-1935 hrs, 16.1°C, clear-partly cloudy.

**1970, 14 November, Facinas, (N36.14768 W5.70281), CA-221**

9 km. NE, 1440 hrs, 17.2°C, on a stone bridge a young *Podarcis vaucheri* seen.

10 km. NE, 1450 hrs, adult *Podarcis vaucheri* (CMFS 19374-19378; CM 54230-54234)

shot from culvert.

11 km. NE, 1500 hrs, 16.1°C, *Podarcis vaucheri* active in sun on culvert.

11 km. NE, 1515 hrs, 17.2°C, at a large bridge adult *Podarcis vaucheri* (CMFS 19374-19378;

CM 54230-54234) shot under partly cloudy-sunny skies.

12 km. NE, 1517 hrs, 17.2°C, *Timon lepidus* (CMFS 19379; CM 53235) shot from boulder—a

well-patterned adult.

1539 hrs, 11.1°C in shade (absence of sunlight due to cloud cover).

20 km. NE, 14.4°C, *Podarcis vaucheri* taken alive (CMFS 19374-19378; CM 54230-54234)

from a rock outcropping.

21 km. NE, 16.7°C, *Podarcis vaucheri* shot (CMFS 19374-19378; CM 54230-54234) from a

wall.

1605 hrs, 15.6°C, *Podarcis vaucheri* shot (CMFS 19374-19378; CM 54230-54234) from

boulder.

**1970, 14 November, Algeciras, (N36.12751 W5.44806), N-340**

17 km. S, *Bufo spinosus* D.O.R.. This is the first *Bufo spinosus* seen in this area between Algeciras and Tarifa.

**1970, 14 November, Vejer de la Frontera, (N36.26089 W5.96476), N-340**

15 km. SSE on N-340, adult *Rhinechis scalaris* D.O.R..

**1970, 14 November, Puerto Real, from N-IV at ~N36.53761 W6.16818 to C-440 via A-408**

9 km. E, 1920 hrs, 2 *Pelobates cultripes* (CMFS 19380-19381; CM 54236-54237) collected A.O.R..

**1970, 15 November, Jerez-Arcos-Bornos-Villamartín-Algodonales-Olvera-Setenil-Alcalá del Valle-El Gastor-Algodonales-Jerez**

1030 hrs-1700 hrs, 13.3°C.

**1970, 15 November, Algodonales, (N36.87596 W5.40170), N-342 (A-384)**

11 km. NE, 1200 hrs-1230 hrs, talus slope, area of *Lygos monosperma*, nothing seen.

12 km. NE, collected another talus slope area of *Lygos monosperma* and *Cistus ladanifer*.

*Psammodromus algirus* taken here before but not today, a *Malpolon monspessulanus*

shed skin seen.

**1970, 15 November, Olvera**

3 km. E at Sevilla Province Border (N36.95031 W5.24273), 1326 hrs, 13.3°C, *Podarcis*

*vaucheri* on culvert.

**1970, 15 November, Olvera, (N36.93170 W5.24237), CA-9106**

6 km. SE, 1400 hrs, 15.6°C, *Timon lepidus* active in *Juncus acutus* which was growing from side

of cliff.

**1970, 15 November, Setenil de las Bodegas (N36.86235 W5.18572), CA-9120**

5 km. NE, 1430 hrs, 14.4°C, 3 *Podarcis vaucheri* (CMFS 19382-19384; CM 54238-54240) shot

from bridge, one other observed.

**1970, 17 November, Rota vicinity** Maxwell collection**.**

*Hemorrhois hippocrepis* (CMFS 19385; UCM [number unknown])

**1970, 18 November, Jerez-Alcalá de Los Gazules-Casas del Castaño-Los Barrios-Tarifa** 1840 hrs-2130 hrs.

**1970, 18 November, Alcalá de Los Gazules, (N36.43994 W5.71962), C-440**

13 km. SE, 2017 hrs, 15.6°C, *Pleurodeles waltl* (CMFS 19386; CM 54241) collected A.O.R..

19 km. SE, 2030 hrs, ***Discoglossus jeanneae***(CMFS 19388-19389; **PARATYPES** CM 54243-54244) collected A.O.R..

**1970, 18 November, Casas del Castaño, (N36.30792 W5.59662), C-440**

1 km. NW, 2037 hrs, ***Discoglossus jeanneae***(CMFS 19388-19389; **PARATYPES** CM 54243-

54244) collected A.O.R..

2 km. SE, *Hyla meridionalis* (CMFS 19387; CM 54242) collected A.O.R..

2 km. SE, A small fox-like animal (*Vulpes vulpes*; solid dark tail with white tip) seen.

**1970, 19 November, Rota (N36.62899 W6.35430)-Chipiona (N36.70769 W6.41560) Road**

2000 hrs-2145 hrs, 90% RH, 16.1°C, rain.

*Pelobates cultripes* (CMFS 19392[12] -19399; CM 54247[19]) and *Pelodytes ibericus* (CMFS 19400-19403; CM 54248-54251) collected this evening along this “famous” route.

**1970, 20 November, Puerto de Santa María (= Valdelagrana, N36.57945 W6.22406)**

*Pelobates cultripes* (CMFS 19404-19409; CM 54255-54257)

*Epidalea calamita* (CMFS 19406; CM 54354)

**1970, 21 November, La Algaida (N36.862136 W6.302683)**

1445 hrs, 16.7°C, clear and sunny.

1454 hrs, juvenile *Psammodromus algirus* under *Pinus pinea*.

1504 hrs, juvenile *Acanthodactylus erythrurus* shot in *Juniperus phoenicea*.

1512 hrs, juvenile *Acanthodactylus erythrurus* shot in *C*or*ema album*.

1520 hrs, juvenile *Psammodromus algirus in* *Pinus pinea* needle area under plant resembling

*Genista*.

1529 hrs, juvenile *Psammodromus algirus* shot under *Pinus pinea* amidst miscellaneous

unidentified plants.

1545 hrs, juvenile *Acanthodactylus erythrurus* shot in unidentified plants/*Pinus pinea*.

1550 hrs, 16.1°C, end.

D.O.R. *Rhinechis scalaris* found on dirt road to Bonanza.

*Acanthodactylus erythrurus* = CMFS 19407-19409 (CM 54255-54257).

*Psammodromus algirus*= CMFS 19410 (CM 54258).

**1970, 23 November, Puerto Real road to Medina Sidonia**: 2000 hrs-2200 hrs, 14.4°C.

W. R. Maxwell and I travelled road to collect whatever was out and around. Nothing appeared in the 2 hour stretch.

**1970, 24 November, Puerto de Santa María (= Valdelagrana, N36.57945 W6.22406)** Maxwell collection.

*Pelobates cultripes* (CMFS 19412[18[; CM 54260[18]).

*Pleurodeles waltl* (CMFS 19416-19417; CM 54261-54262)

*Epidalea calamita* (CMFS 19418; CM 54263)

*Pelodytes ibericus* (CMFS 19419; CM 54264)

*Hyla meridionalis* (CMFS 19420; CM 54265)

**1970, 27 November, Puerto de Santa Maria, 2.2 mi S Benchmark (= Valdelagrana, N36.57447 W6.21956, 3 M)**

1215 hrs-1400 hrs, 19.4°C, Wind from NE, overcast.

One dead *Rhinechis scalaris* (CMFS 19421; CM 54266), juvenile *Natrix maura* (CMFS 19422; **CM 54267**), juvenile *Timon lepidus* (CMFS 19423; CM 54268) collected.

On the return trip to Jerez de la Frontera, one adult *Natrix maura* (CMFS 19424; **CM 54269**) was collected on C-440 (=A-381) SE of Jerez de la Frontera, W of intersection of **A-408** to Puerto Real and **CA-3200 to** Paterna de Rivera. **Most probable locality: N36.54781 W5.99097, 78 M; loss of exact data due to tape recorder malfunction.**

**1970, 29 November, Puerto Real-Alcalá de Los Gazules-Casas del Castaño-Los Barrios-Algeciras-Tarifa-Vejer**

1800 hrs-2250 hrs, 12.2°C with rain.

**1970, 29 November, Alcalá de Los Gazules, (N36.43994 W5.71962) , C-440**

12 km. SE, second *Pleurodeles waltl* taken. CMFS 19428-19429; CM 54273-54274 (**Tape recorder malfunction for data on the first specimen**.)

**1970, 29 November, Casas del Castaño, (N36.30792 W5.59662), C-440**

12 km. SE, 2030 hrs, 11.7°C, *Salamandra longirostris* (CMFS 19427; CM 54272) D.O.R..

4 km. NW, 2045 hrs, 11.1°C, *Hyla meridionalis* A.O.R..

4 km. NW, 2046 hrs, 12.8°C, 2 *Hyla meridionalis* (CMFS 19425-19426; CM 54270-54271)

A.O.R..

**1970, 29 November, Algeciras, (N36.12751 W5.44806), N-340**

8 km. S on N-340, 2150 hrs, 12.8°C, *Salamandra longirostris* (CMFS 19431; CM 54276) A.O.R.

**1970, 29 November, Tarifa, (N36.02652 W5.60407), N-340**

10 km. WNW (~N36.07859 W5.69049), 2135 hrs, adult *Pelobates cultripes* (CMFS 19430; CM

54275) A.O.R..

1970, November – December, precise locality unknown (oops!); Definitely Cádiz Province.

ES 298, ES 299, Heteroptera, Nepidae. CM accession 24982.

**1970, 03 December, La Algaida (N36.862136 W6.302683)**

*Pistacia lentiscus* in area being burned.

1245 hrs, 14.4°C.

1325 hrs, 15.6°C.

1424 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

1429 hrs, juvenile *Acanthodactylus erythrurus* shot in *C*or*ema album*.

1434 hrs, juvenile *Psammodromus algirus in* *C*or*ema album*.

1435 hrs, 17.2°C.

1446 hrs, juvenile *Acanthodactylus erythrurus* in *C*or*ema album*.

**1970, 03 December, La Algaida (N36.862136 W6.302683) -2-**

1505 hrs, juvenile *Acanthodactylus erythrurus* shot in *C*or*ema album*/*Juniperus phoenicea*.

1515 hrs, 17.2°C.

1542 hrs-1547 hrs, (~ ± 17.2°C) 1 juvenile *Psammodromus algirus* shot in *C*or*ema album* while sunning, etc.

1553 hrs, 16.7°C.

1601 hrs, juvenile *Acanthodactylus erythrurus* shot in *C*or*ema album*.

1611 hrs, 16.1°C, end. *Acanthodactylus erythrurus* (CMFS 19432 [3]; CM 54277[3]),

*Psammodromus algirus* (CMFS 19433; CM 54278).

**1970, 05 December, Rota**

W. R. Maxwell and I collected on the beaches to the west from 1500 hrs-1600 hrs.

1515 hrs, *Acanthodactylus erythrurus* (CMFS 19434; CM 54279) collected, only specimen seen.

**1970, collection date unknown**, preserved 6 December, from Rota vicinity.

*Chamaeleo chamaeleon* (CMFS 19435; CM 54280) Maxwell collection.

**1970, 10 December, Rota (N36.62899 W6.35430)-Chipiona (N36.70769 W6.41560) Road**

1900 hrs-2030 hrs, 13.3°C.

*Hyla meridionalis* (CMFS 19436; CM 54281), *Pelodytes ibericus* (CMFS 19437-19438; CM 54282-54283), and *Pelobates cultripes* (CMFS 19439-19445; CM 54 54284[7]) collected A.O.R..

**1970, 13 December, Puerto Real-Jerez de la Frontera**

1500 hrs-1700 hrs, 16.1°C and clear.

**1970, 13 December, Puerto Real, from N-IV at ~N36.53761 W6.16818 to C-440 via A-408**

8 km. E, 1545 hrs, *Rhinechis scalaris* (CMFS 19446; CM 54285) D.O.R..