

FIELD

NOTES

1970

PT. 1

Stephen D. Busack

[1 JANUARY - 29 AUGUST]

FIELD

NOTES

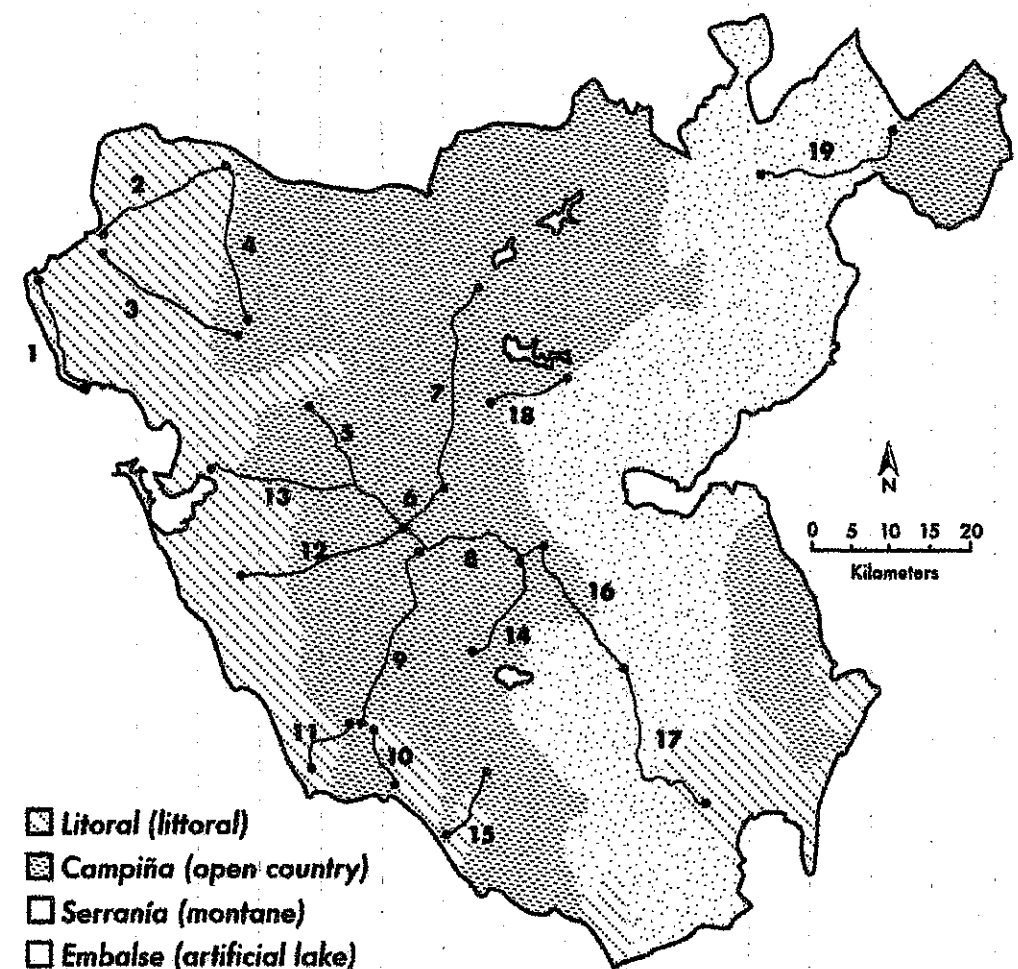
1970

PT. 2

Stephen D Busack

30 AUGUST - 13 DECEMBER

pp. 95-131



SPAIN, CÁDIZ PROV.

7 Jan 1970 Naval Base - Rota - Chipiona (1955-2215)

It has rained every day since 1 January, accumulation has been heavy in lowland areas. Weather: Intermittent rain, SW wind 18-25 mph, 59°F at 1955.

1955, one Bufo calamita seen AOR on Naval Base.

Pleurodeles waltli seen AOR/DOR at Rota; 1.0, 3.5, and 3.9 mi. WNW of Rota on the Chipiona Road. 2010-2030 the following specimens were collected at locations noted:

Rota; 1.4 and 1.9 mi WNW at 2010 & 2012 hours 2

Bufo calamita (CMFS 18245-18250). Rota; 1.9, 2.3, 2.5, 2.7 (2020), and 4.5 mi WNW 5 Pelobates cultripes (CMFS 18251-18265). Rota; 3.5 mi WNW @ 2025 and 59°F one Pelodytes punctatus (CMFS 18240 [9]) collected AOR.

At 2020 it was still 59°F and many places up to 2.7 mi WNW of Rota which are normally dry are under water to depth of one foot or more. A light rain is falling. 4.5 mi WNW of Rota a large chorus of Hyla is noted on both sides of the road.

2030-2100 the following specimens were collected:

Chipiona; 3.7 mi ESE 2 B. calamita (CMFS 18245-18250). Chipiona; 3.5, 2.7, 0.4, and 0.1 mi ESE 4 Pelobates cultripes (CMFS 18251-18265). Chipiona; 2.6, 1.8, 1.7 (2050) [59°F], and 1.2 mi ESE 4 Pelodytes punctatus (CMFS 18240 [9]) collected.

At 2055 a light mist started falling and at 2100 it stopped again. One Hyla a. meridionalis (CMFS 18242-18244) collected .7 mi ESE of Chipiona.

2130-2150 the following were collected:

Chipiona; 1.9 and 2.3 mi ESE 2 more Hyla a.

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meridionalis (CMFS 18242-18245). Chipiona; 2.0, 2.1 (2132) [58°F], 2.2, 2.5, and 2.8 mi ESE 6 Pelobates cultripes (CMFS 18251-18265). 1 Bufo calamita (CMFS 18245-18250) at 2.2 mi ESE Chipiona and the only Discoglossus p. pictus (CMFS 18241) at 2.6 mi ESE Chipiona. Pelodytes punctatus (CMFS 18240 [97]) was collected at 3.2, 3.3, 4.5, and 6.0 mi. ESE of Chipiona. The last Pelobates cultripes (CMFS 18251-18265) at 4.7 mi ESE Chipiona and a Bufo calamita at 4.8 mi ESE.

Six miles ESE of Chipiona a heavy shower of Hyla noted at 2215 under a heavy rain which began at 2200. At this point the N. side of the road is entirely flooded and the S. portion is very wet with some, but not as much as N. side, standing water. The survey ended at 2215 and with a temperature of 59°F.

Spain, Cadiz Province.

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Rota - Puerto de Santa Maria - Rota. 2005 - 2200.

Weather: SW wind 15-23 mph, 96% R.H., B.P. 29.755 in., and 59°F. (at 2005)

Several Pelobates cultripes and Pleurodeles waltli seen while driving from Pto. gate of base to 1.8 mi ESE of Puerto de Santa Maria on the connecting road.

Heavy flooding was noted in the normally dry collecting area with as much as two feet of standing water in some areas.

2020-2022 three Pelobates cultripes (CMFS 18271-18273) were collected AOR on road to the beach between the two flooded fields. Between 2030 and 2115, I collected 5 Hyla a. meridionalis from a chorus

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of between 35 and 50 specimens. Identified by CMFS 18266-18270. The water temperature was 59°F and the air temperature was also 59°F. It was noted that these particular Hyla prefer the clumps of "needle" grass 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.

While returning to the base one Bufo calamita (DOR) was noted 2.9 mi. NNW of Puente de Sta. Maria and 2 Pelobates cultripes (CMFS 18274-18275) were collected 3.3 (large) and 4.9 mi. NNW of Pto. de Sta. Maria.

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Rota - Puerto Real - Algeciras - Los Barrios - Casas del Castaño - Alcalá de los Gazules - Pto. de la Frontera - Return to Base. 1800-2400 SW wind 20-34 mph, cumulo-nimbus clouds, heavily overcast, 59°F at start.

32.4 mi SSE Puerto Real on N-340 one Pelobates cultripes seen. A few other P. cultripes and Pelodytes punctatus observed on the way to Algeciras. At 2007 a heavy rain began.

Algeciras, 4.1 mi. WNW on C-440 one Hyla a meridionalis (18276-79) and one ~~Hyla meridionalis~~ Discoglossus p. pictus (18280-82) collected AOR at 2010 and 57°F. Rain reduced to slight drizzle at 2015. 4.8 mi. WNW on C-440 when another Discoglossus p. pictus (18280-82) was collected at 55°F.

Los Barrios, 2.4 mi. NW on C-440, 2030, 57°F, 1 Discoglossus p. pictus (18280-18282) collected AOR. Road in this area contains much surface water and the mud covering the road surface is indicative of previous flooding. 3.5 mi. NW, 2031, 58°F, and Hyla a meridionalis (18276-79)

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collected under light rain. 4.4 mi NW, 2035, 56°F, another Hyla (18276-79) collected. 5.2 mi NW, 2040, 54°F, under heavy rain a Rana r. perezi (18283-18284) collected. 6.9 mi. ^{NW}NE, 2048, 56°F and one juvenile Rana a. perezi (18283-18284) collected AOR.

Casas del Costazo, 4.5 mi SSE on C-440 at 2100 and 54°F, one P. punctatum (18285-18286) collected AOR. .7 mi SSE at 2115 and 54°F one H. a. meridionalis (18276-18279) and one P. punctatum (18285-18286) collected AOR. .9 mi NW a small group of Hyla heard calling off to the S. 2.4 mi NW, and 6.3 mi NW considerable road water observed. 7.4 and 7.7 mi NW a chorus of Hyla in the southern portion of area. 8.5 mi NW, 2145, 55°F one P. punctatum (18287-18289) collected AOR. 8.8 mi. NW, a chorus of Hyla from flooded area to south. Much of the road surface is under water (1/2-1" deep) and in some areas there is considerable flooding.

Alcalá de los Góngora, 5.1 mi SE on C-440, 2150, 55°F, one P. punctatum (18287-9) collected AOR and a Hyla chorus noted from south. 4.8 mi SE another Hyla chorus heard from south. 4.7 mi SE one Pelobates cultripes (18291) captured in an area of Hyla chorus. 1.9 mi SE a chorus composed of large aggregation of Hyla. 1.6 mi SE, 2206, 54°F, a D. p. pictus seen AOR and a large aggregation of Hyla heard. 1.3 mi SE, 2209, 54°F a H. a. meridionalis (18290) captured AOR and at 1.3 mi. SE a small raccoon (Procyonidae) like animal, tannish-brown in color, and with two black stripes on forehead extending from ear through the eye to the

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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 "Opposum-like" hair.

.7 mi SE, 2213, 56°F, a P. punctatus (18287-9) was collected AOR. 2.2 mi WNW a chorus of Hyla heard from south. 4.3 mi WNW, 2232, 55°F, 1 P. punctatus (18293) AOR and the 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) markings on thumb and fore-finger which may be indicative of sexual dimorphism. 12.9 mi WNW a chorus of Hyla heard from south.

Juz de la Frontera, 14.4 mi SE on C-440 considerable flowing water on the road. 9.8 mi SE and there's a river on the road for about 500'. 7.5 mi SE and one Plumochela walli seen AOR but not collected. 7.2 mi SE, 2347, 53°F and one P. walli (18294) collected AOR. 6.3 mi SE and another P. walli seen AOR.

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Juz de la Frontera vicinity 0014-0030. Villamartin-Bornos - Arcos de la Frontera - Juz de la Frontera. 1855-2100.

Juz de la Frontera, 0014, 55°F, 10.2 mi SW on unmarked base road one Bufo calamita (18292) collected and at survey's end the time, etc. were as follows: 0030, partially overcast, 56°F.

Villamartin, 1855, 53°F and it's pouring. 1.4 mi WSW one Rana r. perezi (18319-18321) AOR with injured

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leg collected. 1.9 mi WSW a Discoglossus p. pictus (18314-18318) collected. 2.0 mi WSW another D. p. pictus (18314-18318) collected. 2.2 mi WSW a Hyla (18307-18312) AOR collected and a Discoglossus p. pictus (18314-18318) collected. 2.7 mi WSW two H. a. meridionalis (18307-18312) and a small Rana c. perezi (18319-18321) collected. 2.8 mi WSW another Hyla (18307-312) at 1920 and 53°F. 3.2 mi WSW, Hyla (18307-312) collected AOR. 4.1 mi WSW a Hyla (18307-312) and a D. p. pictus (18314-318) collected AOR. 4.5 mi WSW another Rana c. perezi (18319-321) collected. 4.8 mi WSW a Bufo calamita (18313) collected and it's noted there was little or no standing water to this point. Considerable road flooding was found at 6.1 mi. WSW. 6.7 mi. WSW a D. p. pictus (18314-18318) collected AOR and at 7.1 mi WSW a veritable stream is flowing down the road. 7.3 mi WSW the Rio Guadalupe was noted to have flooded her banks at least 50' to either side.

Bornos, .6 mi SSW a heavy fog has set in on N-342. .7 and .8 mi SSW, extremely windy, 2 B. calamita (18301-18306) taken. 1.2 mi SSW a B. calamita seen AOR. 1.3 mi. SSW another B. calamita (18301-18306) collected. 1.4 mi SSW a Pelobates cultripes (18300) collected AOR. 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.

Arco de la Frontera, 2009, 57°F, 1.4 mi NNE a Discoglossus p. pictus seen AOR. .9 mi NNE a B. calamita

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(18301-18306) AOR and the rain is slowing down. .6 mi. NNE the road is flooded. .5 and .4 mi. NNE two Bufo calamita (18301-18306) AOR at 2019. 1.6, 2.2, and 2.6 mi WSW on N-342 considerable flooding. 3.0 and 3.3 mi WSW two Rana r. perezi (18296-18297) collected at 2037. Considerable flooding at 4.1 and 4.5 mi. WSW. 7.7 mi WSW a Hyla arborea meridionalis (18298) collected. 5.8 mi ENE on N-342 a DOR Rattus seen. Several other Rattus have been noticed along this route to Arcos this evening. 5.5 and 5.0 mi ENE road flooding prevalent. 2.3 mi ENE a D. p. pictus (18299) collected AOR and at 1.5 mi ENE more road flooding.

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NAVBASE - San Lucas de Barrameda - Trebujena - ferry de la Frontera. 1835-2230. 57°F, cumulo-nimbus 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.

Intersection of C-440 (to ferry de la Frontera and San Lucas de Barrameda) with unmarked road (to NAVAL BASE), .7, 2.0, 3.3, 4.4, and 6.1 mi WNW on C-440 much standing water (running in places) noted on highway. 4.9 and 6.2 mi WNW Hyla heard from S. in flooded field (chorus of between 10-20). 6.7 mi WNW a Pelodytes punctatus seen AOR. 6.8 mi WNW, 1915, 54°F, one Hyla a meridionalis (18327-18328) captured and 8-9 heard calling from south.

San Lucas de Barrameda, 2.6 mi ESE on C-440 a Hyla (18327-328) taken AOR and at 2.4 mi ESE

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one P. punctatus (18329-30) taken AOR. 1.8 mi ESE Hyla heard calling from south. and standing water noted on road. 1.2 mi ESE a P. punctatus (18329-18330) collected AOR. 1.0 mi ESE a large chorus of Hyla calling from south which turned to a chorus from both N+S. at .9 mi ESE. .8 mi NE (C-441 to Trebujena) the road is flooded and covered with mud, indicating previous flooding. 1.3 mi NE a D. p. pictus taken AOR at 1943 and 56°F with several Hyla heard. 1.4(2), 1.7(2), and 1.9 mi NE five P. punctatus (18325[19]) and at 1.9 mi NE a chorus of Hyla noted. 2.4 mi NE a large chorus of Hyla heard from W. and at 3.4 mi NE a P. punctatus seen and one P. punctatus (18325 [19]) collected AOR. 3.5 (2[58°F]), 3.6, 3.7(2), 3.8, and 3.9 mi NE a series of 7 P. punctatus (18325[19]) collected AOR. 4.1 mi NE Hyla calling from W. 4.2 and 5.1 mi NE road, respectively, under water and above water but land around flooded. Several Hyla calling from 5.1 mi NE where a Pleuroclelea walsh (18324) and a P. punctatus (18325 [19]) were taken. 5.7 mi NE considerable water over road's surface and at 6.4 mi NE a Bufo calamita (18323) collected. 7.5 mi NE a chorus of Hyla from W. and E. but very strong in W.

Trebujena, 6.1 mi SW a P. punctatus observed AOR. 5.4 mi SW considerable water on highway and the chorus of Hyla stopped at 5.2 mi SW to be resumed at 4.6 mi SW on W. side of road. 4.1 mi SW one Pelodytes punctatus (18325 [19]) taken AOR.

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in vicinity of large chorus of Hyla (from E). 3.9 mi SW a large chorus of Hyla from apparent lake in E. Much water on land in West. 3.3, 3.2 (2122, 59°F), and 2.5 mi SW three P. punctatus taken AOR (18325 [19]). 2.0 mi SW a Hyla seen AOR and at 1.8 mi SW a P. punctatus (18325 [19]) collected AOR at 2140 and 57°F.

Trechuena (CA-601 to Juez); 1.6 (2155, 52°F), 2.2, 5.3 (2), 8.3, and 8.5 mi SE six P. punctatus (18326 [7]) collected AOR. Hyla a meridionalis heard calling at 2.2 (from N), 4.5, 6.4 (N), and 8.3 (N+S), and 8.5 (N+S) mi SE. 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.

Juez de la Frontera, 3.3 mi NW a P. punctatus (18326 [7]) collected, a chorus of Hyla from N. at 2.1 mi NW, and the road is under water 4.2 mi and from 1.4-1.2 mi NW.

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Juez de la Frontera - La Barca de la Florida - Arcos de la Frontera - Juez. 1828 - 2240. 55°F, SW wind, sky partly cloudy (cumulus, some stratus) and intermittent wind.

Juez de la Frontera, (CA-502 unmarked ESE road), 2.6 (1910, 56°F) and 4.6 mi ESE (1917, 56°F) two Rana v. perezi (18340-18341) collected. Chorus of Hyla were heard at 5.7 (N), 6.3 (N+S), 8.4 (N), 9.2 (N), 9.6 (N), 10.7 (N+S), 13.1, 14.0 (N), 15.3 (N), and 15.7 (N+S) mi ESE. One Hyla a meridionalis (18338) collected 14.5 mi ESE. Bufo calamita (18339 [5])

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Arcos de la Frontera, SSW on C-343, Hyla a meridionalis heard at 8.0 (W+E), 7.3 (E+W), and 6.4 (E) mi SSW. The E. portion of the land is under water at 7.3 mi SSW and the W. side is extremely wet. Bufo calamita (18333) collected at 2055, 54°F at 7.2 mi SSW. 4.7 mi SSW a Pelodytes punctatus (18337) collected AOR. Discoglossus p. pictus (18334-18336) collected at 3.7 (2120, 53°F) and (2) 1.6 (2132, 52°F) mi SW. Rana v. perezi (18332) collected at 2123 and 53°F, 3.3 mi SW.

At 2240 a D. p. pictus was captured (18331) .4 mi WSW of Arcos de la Frontera on N-342 at 52°F.

16 JAN 70 Jimena de la Frontera and San Pablo, 2226-2400. 46°F. Partially overcast.

Jimena de la Frontera, 17.5 mi S. on C-333 one P. waltli seen DOR. 13.4 mi S, 2247, 42°F one D. p. pictus (18342-18343) collected AOR. 6.6 mi S, 2349, 48°F, one P. punctatus (18344) collected AOR. A small chorus of 2-3 Hyla heard from W.

San Pablo, .2 mi SW on unmarked road, 2354, 54°F, one Discoglossus p. pictus (18342-18343) collected AOR.

17 JAN 70 Jimena de la Frontera - Algar - Naval Base - Arcos de la Frontera - Villamartin - Algodonales - Olvera - and return. 0011-0200 + 1934-2325. 45°F and 52°F.

17 JAN 70 0011, 45°F.

Finera de la Frontera, 2.4 mi NW on C-333 one Bufo
b. bufo (18346) collected AOR. 2.6 mi NW the road is almost
under water.

Algor, 3.5 mi SE of I with road to Algor on
unmarked road to Finera de la Frontera, 0147, 40°F, one
Bufo calamita collected AOR.

Elevation marker at GALIS (just over Cadiz Prov.
border when coming from Malaga Prov. and Finera) noted
at 417 M.

1934, 52°F, light Rain

Naval Base, 2 Bufo calamita observed on base. 1.6 mi NW
from Pto de Sta Maria gate one Elaphe scalaris (18347) collected
DOR and one Hyla a. meridionalis seen DOR.

Acos de la Frontera, 9.3 mi NNE to Villamartin
on N-342 one Bufo calamita observed AOR.

Villamartin, 1.2 mi ENE on N-342 and the road
is flooded with N. side of road under water. 3.9 mi ENE a
small chorus of Hyla heard in M. 4.6 mi ENE a Rana sp.
(r. perezi?) observed AOR. 5.9 mi ENE a Discoglossus p.
pictus seen AOR/DOR and not collected.

Algodonales, 6.2 mi (N, 1 spec.) and 5.7 (sw, N) mi
WSW choruses of Hyla heard. 5.7 mi WSW, 2200, 56°F, 1
D. p. pictus (18349) collected. Another D. p. pictus seen AOR
1.1 mi WSW. 5.6 mi WSW, 2200, 56°F, a Bufo calamita (18348)
collected. 1.5 mi ENE on N-342, 2234, 50°F, one Pelodytes
punctatus (18350) collected AOR. 2.7 (2245, 53°F), 3.6, and 4.4
(2256, 49°F) mi. ENE three Bufo calamita (18351-18353) collected
AOR. Hyla heard 3.6 mi. ENE at 2255 and 52°F. 3.7 mi ENE

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one Hyla a. meridionalis (18355) collected AOR and a chorus of same heard from S.

Olvera, 2.7 mi WSW (2325, 52°F) one Rana r. perezi (18354) collected AOR.

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0005-0120, 46°F.

Olvera, 6.0 mi WSW a Bufo calamita (juv) (18356-7) collected AOR. 6.2 mi WSW, 0010, 46°F, a Discoglossus p. pictus (18358-9) collected AOR. 6.5 mi ENE, 0012, 46°F, a Pelodytes punctatus (18360-361) collected AOR. 6.4 mi ENE a Bufo calamita (18356-7) collected AOR. 5.6 mi ENE, 0017, 50°F, a D. p. pictus (18358-18359) collected AOR and at 4.7 mi. ENE another seen but not collected. 3.1 mi ENE at 0037 a P. punctatus (18360-18361) collected and the following notes were made: Discoglossus p. pictus has a tendency to lower its head and elevate its rear in a doglike fashion (with forefeet close to head) when approached. Bufo calamita flattens its body in an attempt to be close to the ground whenever it is approached.

Algodonala, 3.2 mi WSW a Pleurodela walli seen AOR and at 3.4 mi. WSW a Hyla seen AOR but neither were collected.

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2010-2220. 56-51°F. Medina Sidonia - Chiclana de la Frontera.

Medina Sidonia, 2.3 mi SW on C-346 at 2105 a Pelodytes punctatus (?) observed AOR. Chorus of Hyla heard at 2.4, 3.4, 3.7, 4.7, 5.2, 5.5, 5.7, and 6.5 mi SW and all from the south side of the road. Two P. punctatus (18362-18363) collected at 5.7 (2127, 57°F) and 6.2 (2135, 55°F) mi. SW.

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Chiclara de la Frontera, 7.0, 6.6, 5.9, 5.5 (15-20), 3.7, and .5 mi ENE chorus of Hyla were heard from south side of the road. 2.5 mi ENE at 2214 and 53°F one Discoglossus p. pictus seen AOR but not collected. One D. p. pictus (18346) was collected 1.3 mi ENE, however.

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Rota - Chipiona. 1910 - 2230. 55°F at start with intermittent rain. [2215 = S winds 13-17 mph, 100% R.H., B.P. 30.020 and 1, 54°F]

Rota, 2.0, 2.2, 2.4, and 5.2 mi NW (3) Pelobates cultripes (18367-72) collected AOR. 2.8 and 3.3 mi NW (2) Pleurodeles waltl (18376-18378) collected AOR. 3.2 (♂), 3.9 (♂), 4.4 (♂), and 5.2 (♂) mi NW four Pelodytes punctatus collected AOR. 6.6 (♀), 6.5 (3♀♀), 6.4 (♂), 6.1 (♀), 4.7 (♂), 4.6 (♂?), 4.3 (♂), 4.2 (♂), and 3.9 (♀) mi NW eleven P. punctatus collected AOR. 4.5 mi NW a large Pleurodeles waltl (18376-18378) collected, 4.3 mi NW a ♂ Hyla a. meridionalis (18365-18367) collected. 2.9 mi NW a Pelobates cultripes (18369-18372) taken and at 2.6 mi NW a ♀ Hyla a. meridionalis (18365-18367) collected.

Chipiona, 5.3 mi SE a P. cultripes observed AOR. 5.3 (DOR), 4.4 (♂ + ♀) (57°F, 2016), 4.1 (♂), 3.8 (♀?), 3.2 (2030, 58°F, ♂), 2.7 (♀), 2.6 (♂), 4.2 (2♂♂), 4.4 (2♂♂ + ♀) mi SE Pelodytes punctatus collected AOR. 2.3 mi SE a Hyla a. meridionalis (18365-67) ♀ collected and Bufo calamita (18373-75) taken at 3.7, 4.3, and 5.2 (2130, 55°F) mi SE.

All ♂ Pelodytes were sent to A. James Delahoussaye at Arizona State University, Tempe, Ariz. on 24 Jan 70 for his sperm morphology work. Those not

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sent bear CMFS 18368 (9).

Arcor de la Frontera - Algor - Tempul - San José del Valle - Patuna de Rivera. 2017-2400. 52°F. Raining in Patu but somewhat clear from Arcor - Algor.

Arcor de la Frontera, 5.2 (2030, 50°F) and 6.3 mi SE two Bufo calamita (18380-18381) collected.

Algor, 6.1 (1 spec. from N), 3.3 (3-4 from N), 4.0 (2-3 from N), 2.2 (1 spec from N), and 1.9 (N) mi NW Hyla a. meridionalis heard calling from the area. 4.0

(2050, 48°F) one Rana a. perezi seen AOR. 2.1 mi NW (2256, 50°F) one Bufo calamita (18384-18386) collected AOR. flight drizzle started at 2110. 1.0 (2114, 47°F) mi.

S. a Bufo calamita (18384-18386) collected AOR. 1.7 mi.

S. at 2118 and 48°F a Hyla a. meridionalis (18383) collected.

Tempul, 3 mi SE a Discoglossum p. pictum (18388[6]) collected. 2.1 mi (2145, 50°F) and 3.2 (2155, 50°F) mi W. two D. p. pictum (18388[6]) collected. 2.3 mi W. a Bufo calamita (18384-18386) collected AOR at 2147 and 50°F.

3.2 (10 from N) and 4.3 (2210, from S) mi W. chorus of Hyla heard. Rain stopped at 2140.

San José del Valle, small chorus of Hyla heard at 2.5 (4-5 from S), 1.9 (3 from S), 1.7 (S), 1.3 (S), and .8 (5-6 from S) mi E. 2.4 (2218, 52°F) one AOR and one DOR, 1.3 (2227, 52°F), .4 (2232, 52°F), and .4 (2234, 52°F) mi E. D. p. pictum (18388[6]) collected. Palodytes punctatus (18387) collected at 2222, 51°F, 1.9 mi E. Hyla chorus heard at .3 (S) and 2.4 (1 from S) mi W.

Raining at 2246. Triturus m. pygmaeus (18382) collected

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at 2.0 mi W. at 2250 and 51°F. Found in area of Quercus suber on road during a very heavy rain.

Patuna de Rivera, on C-344, 7.6 (strong to E), 6.3 (2 from E), 6.2 (5 from E), 4.8 (1-2 from E), and .3 (E) mi. N. chorus of Hyla heard. 5.3 (2309, 51°F) a Pelodytes punctatus (18392-18394) collected and the rain has subsided. .3 (2343, 50°F) and 1 mi N. on C-344 two Discoglossus p. pictus (18390-18391) collected AOR. .3 (2344, 50°F) and 2.3 mi S. P. punctatus (18392-18394) collected AOR. Hyla heard 2.3 (2355, 50°F) and 3.8 (E + W -- stronger in E) S. at 2400 and 51°F a Pelobates cultripes (18389) collected AOR 3.8 mi South.

31 JAN 70

Sotoquinde - Algeciras - Torifa - Vejer de la Frontera - Chiclona de la Frontera. 1725-2209; 55-49°F

Sotoquinde, 4 mi SW at 1725 and 55°F a Coluber hippocrepis found AOR on N-340.

Algeciras, 1.2 mi N. on N-340 a Bufo calamita seen AOR but not collected.

Torifa, 1.6 mi NW at 2031 and 52°F a Pelobates cultripes found DOR and Hyla a. meridionalis was heard calling at 6.4 (51°F, large chorus to S.), 8.0 (2 DOR specimens at 2050 and a small chorus in S.), 10.4 (S), 10.9 (S), 13.7 (S), 15 (very large to S) - 16 (on N + S sides) mi NW.

Vejer de la Frontera, 15.3 mi. SE a Pleurosalix walli found DOR and Hyla heard at 13.0 (2110, 51°F, one AOR collected [18397-18399]), 12.9 (S), 10.7, 8.9 (large aggregation), 8.3 (S), 7.2, 7.1, and 5.3 (one collected 18397-18399) mi. S.E.

31 JAN 70

11.0 mi SE, 2115, 50°F and one Rana ^{r. perezi} ~~escutentata~~ (18396) collected AOR. 7.2 mi SE a Rallus sp. seen DOR.

01 FEB 70

Jerez de la Frontera - La Barca de la Florida - Tempul - Salin - Urbique - Benaozay - Villa Luenga - Algodonales. 1420-2030, 50°F - 44°F. Clear - partly cloudy w/ cumulus. La Barca de la Florida, 1.7 mi W. a Meris maura observed DOR. 4.9 mi E, 1434 (66°F) - 1515 (60°F). At 1445 a rabbit was observed, at 1557 a Psammophilus a algium seen active at base of Quercus suber in SE corner of property. ES 148-152 (plant specimen) collected and dried. 2 ULEX spp. (ES 151) collected for species identification and it should be noted that the specimen now bear yellow flowers. One small caterpillar collected, disposition unknown.

Tempul, 6.0 mi W. at 1615 a white-winged [MOTACILLIDAE] (Motacilla alba) seen active and appear 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 under sunny skies and 60°F.

Benaozay, 12.5 mi NE on C-3331 at 2015 and 44°F a Bufo calamita (18400) collected AOR and at 12.7 mi. NE a rabbit crossed the highway.

06 FEB 70

Véjer de la Frontera - Zahara de los Atunes - Barbate de Franco - Véjer. 2007-2329.

54°F at start and there has been rain in the area in the past 2 days.

Zahara de los Atunes, 8.3 mi N. on CV-2222

06 FEB 70

at 2011 and 54°F one Hyla arborea meridionalis (18403[2]) collected AOR, 8.2 mi N. a rabbit observed. Chorus of Hyla were noted at 7.4 (E), 5.6, 5.0, 4.4, 2.4 (E), and 2.1 (NE) mi NW. Discoglossus p. pictus (18401[3]) collected at 7.4, 7.2, and 7.0 mi NW. ES 159 was collected at 4.0 mi NW at 2047 (56°F) AOR. Pelobates cultripes (18404) collected 2.4 mi NW at 2058 and 60°F. Additional Hyla were taken at .9 (2107, 56°F) and .4 (2110, 57°F) NW on CU-2222. Hyla calling also at .2 (W), .8 (E), 1.2 (10-15 from W), 1.3, 2.6 (W), 2.9 (W), 4.0 (W), and 4.6 (25-30, W) mi NE. One Hyla a. meridionalis collected (18403[2]) .8 mi NE at 2049 and 56°F. A rabbit was seen 1.3 mi NE and a Pelodytes punctatus (18402) was taken 2.0 mi NE at ²¹²²~~2122~~ 56°F.

2119

Ujir de la Frontera, 17.1 mi. SE on N-340 a chorus of Hyla noted from south. 16.8 mi SE, 2155, 56°F, one Pelobates cultripes (18405) AOR on N-340. 15.0 mi SE, 2200, 56°F a Hyla a. meridionalis (18406) collected AOR. 14.2 mi SE a large chorus of Hyla calling in S. 8.0 mi SE, 2215, 58°F, a juvenile Rana a. perezi (18407) collected AOR on N-340.

Barbata de Franco, 4.8 mi NW a large chorus of Hyla from N. and the chorus continued strongly to 3.6 mi NW where a ♂ Hyla was collected AOR at 2225, 53°F.

Chiclona de la Frontera, .6 mi N. on N-IV one Hyla a. meridionalis was seen AOR but not collected. Specimens unaccounted for were ♂♂ sent to Delahoussaye at Arizona State University for Spum Morphology research.

SPAIN, MÁLAGA PROVINCE

07 FEB 70

1400-1500, 60°F, one Lacerta muralis 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 the Town of Ronda and is accessible by a small, well-graded, gravel/dirt road.

SPAIN, CÁDIZ PROVINCE

8 FEB 70

Puerto Real - Medina Sidonia (unmarked road from P. Real and intersects with C-440) 1930-2114. 56-55°F.

Puerto Real, 1.5 mi N. on N-IV, the first record of Hyla on the western most extreme of salt marshes taken. The chorus of specimens continues from 1.5-1.1 mi. N. 2.6 mi E, 2 (♂ + ♀) Hyla a meridionalis (18411) collected at 1940 and 56°F. 2.7 mi E, a ♀ H. a meridionalis collected at 1950, 56°F, and a very heavy westerly wind (18412). The ♂ was sent to Delabourgne @ Arizona State. 7.7 mi. E, 2017, 52°F (water) 55°F (air) 2 Pelodytes punctatus (18409-18410) and one Rana r. perezi juvenile (18408) collected in a water hole. The Pelodytes were calling and the voice is a short-termed, high-pitched squeak. (CRĒĒĒĒĒK - CRĒĒĒĒĒK - CRĒĒĒĒĒK like). A third ♂ was observed but not collected.

9 FEB 70

Rota - Chipiona - San Lucas de Barrameda

1915-2100, Rain today with no appreciable accumulation. Road to Chipiona dry. Pelodytes and Hyla heard along route.

Chipiona, 2.6 mi SE (1955) and 59°F, Bufo calamita (18413-18414) collected; 2.5 mi SE (1957, 56°F) and the 2nd B. calamita (18413-414) collected. 4.4 mi NE on C-441 Pelodytes heard calling from the west.

San Lucas de Barrameda, 2.7 mi NE a H. a meridionalis ♀ (18415) found AOR. 3.9 mi NE, 2000-2100, 52°F, about 20 Hyla (♂♂) were collected from a roadside ditch in an area of needle grass. The base of the "pond" is much soil and most frogs were collected while in the water although some were actually high above water level.

9 FEB 70

on needles of needle grass. Their calls were ~~to~~ recorded (data on tape is in error -- should be NE San Lucar) and most ♂♂ were sent to Delahoussaye at Arizona State.

CMFS 18417(4) represents part of that night's collection and these specimens died in holding containers on the 10th of February. A Rana c. perezi (18416) was also taken in this area while it was floating with its snout above water level.

18 FEB 70

Rota - San Lucar de Barameda - Trebujena - Rota

19.20 - 22.17, 54-50°F, clear and sunny all day, slight breeze during survey.

San Lucar de Barameda, 11.1 mi. N. at 2044 and 54°F a Hyla a. meridionalis (CMFS 18418) collected and a chorus of Hyla noted active.

Trebujena, 9.2 mi W. on unimproved, poorly constructed road thru Las Morismas at 2100 and 50°F a Rana viduata perezi (CMFS 18419) collected AOR.

19 FEB 70

Puerto de Santa Maria, 1.8 mi ESE

18.00 - 19.25, 62-57°F, slight easterly breeze, clear and sunny.

1841 a Lacerta schreiberi (CMFS 18421) collected under paper (damp cardboard) in damp soil.

1850 a Hyla a. meridionalis found on CISTUS CRISPUS (L) [CISTACEAE] and designated CMFS 18420.

1911 a worm lizard (a new reptile species for me in Spain) collected under a large flat rock in moist soil. CMFS 18422 = BLANUS CINEREUS.

Mosquitos were noted as very active, frog larvae not yet common but some large specimens from last year's (?) season were

19 FEB 70

observed active. ES 160-165 collected.

21 FEB 70

Trafalgar - Viver de La Frontera - Torija - Algeciras - Los
Barrios - Casas del Castaño - Alcalá de los Sagales.

1300-2220 (1830-2220)

Trafalgar, 60-68°F, 1200-1300⁺, Considerable
flooding in area of Cabo Trafalgar and frog 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 166-171 found under mostly clear skies with few
cirro-stratus clouds. a slight breeze present most of
the time. The sandy soil is probably of the limestone
variety and dunes are present but 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 also present but
not too common. At 1321 it was 68°F.

Viver de la Frontera, 10 mi SE a Lacerta
schröderi seen AOR and 10.3 mi E. Hyla a. meridionalis
heard calling. 10.3 mi SE Maremys c. leprosa seen in
a pond on N. side of road and 18.8 mi SE a Coluber
hippocrepis found DOR. 23.3 mi SE a DOR Matryx maura
found at 1510.

Torija, 1.3 mi NW at 1530 a Maremys c.
leprosa found DOR. 0.1 mi NW a Matryx maura found DOR
but not considered salvageable.

Casas del Castaño, 4.3 and 5.1 mi NW two Hyla
a. meridionalis heard calling from south. 5.2 mi NW a Rana
seen crossing road but not identifiable. 5.7 mi NW an AOR
Rana c. perezi (18423-18424) collected at 59°F. 6.2 mi NW,

21 FEB 70

1942, 62°F a juvenile Rana r. perezi (18423-18428) and an adult Bufo b. bufo (18434) collected AOR. 6.4 mi NW 5-6 Hyla heard from south and at 7.2 mi NW a heavy chorus of Hyla. Rana ~~resaculenta~~ ^{ridibunda perezi} (18429) adult and sub-adult R. r. perezi (18423-18428) collected at 1952 and 58°F. A large chorus of Hyla continuing at least one Pelodytes punctatus heard at 7.6 mi NW and 8.3 mi NW. 2 Rana r. perezi (18423-18428) juveniles found 8.4 mi NW, 2001, and 55°F.

Alcalá de los Gazules, 2.3 and 4.7-4.9 mi SE Hyla heard calling. Hyla a. meridionalis collected at 4.9 (2014, 54°F) and 5.7 (2007, 60°F) mi SE (CMFS 18430-18431). A Rana r. perezi (18423-18428) collected 5.7 mi SE, 2007, and 60°F. 4.4 (2050, 48°F) and 14.0 (49°F, 2121, striped) mi NW yielded Discoglossus p. pictus (18432-18433) under a full moon. ES 172 (a slug) collected 10.8 mi NW at 2110 and 56°F while it was crossing the highway (C-440). Puerto Real, 10.5 mi E yielded a Hyla a. meridionalis (18435) AOR and another was seen 2.6 mi E. but not collected.

22 FEB 70

La Barca de la Florida, 4.9 mi E on CA-502 - Algor.

1410 a Lacerta schreiberi observed crossing the highway under clear skin, no wind, and a 75°F temperature.

1413 a juvenile L. schreiberi seen active along with numerous grasshoppers. A series of larval frog (18436) ^{CM} 52630 supposedly either Bufo calamita, Hyla, or Pelobates collected at 1514 and 73°F. ~~Rana perezi 8085-11/85~~

Algor, 5.3 mi NW a large adult Malspion monspessulanus observed DOR but not collected.

PELODYTES
13 FEB 70
TADS
300
12-1-2016

- 24 FEB 70 Puerto de Santa Maria - Jerez de la Frontera - Rota.
2000 - 2100, 55°-50°F.
Some Hyla heard but nothing else of herpetological interest noted.
- 25 FEB 70 Puerto de Santa Maria, 1.8 mi ESE
1800 - 1942, 60°F, clear and sunny, at 1931 it was 58°F and a fog seemed to be settling in. Hyla heard calling from extremely wet western side, few from E. ES 175-177 collected and R.H. guessed at about 85-90%. Mosquitoes active and at just proportion in some areas. At 1942 a H. a. meridionalis (18437) was collected AOR.
- 26 FEB 70 Naval Base, Rota
0047, one Bufo calamita collected in vicinity of harbor.
- 02 MAR 70 Tarifa - Algeciras - Los Banios - Casas del Castaño - Alcalá de los Gazules.
2000 - 2317.
Algeciras, 3 frogs (1 definite Discoglossus) seen on south side while driving thru town.
Los Banios, 2.3 and 1.7 mi E. H. a. meridionalis seen AOR and at 2011, 54°F, 1.2 mi E. one D. p. pictus (18444 [6]) and 2 H. a. meridionalis (18439 [15]) were collected. Discoglossus p. pictus (18444 [6]) were also taken at 2.9 (2030, 51°F) and 3.2 (2) mi NW. ♂ Rana s. perezi (18440-18441) collected 3.4 mi NW and, at 2041 and 50°F, one Chalcidula s. striatur (18459) adult found AOR sitting in middle of wet road. Hyla a. meridionalis

02 MAR 70

(2050, 51°F) collected 4.2 mi NW (18439 [15]) AOR and at 3.5 mi NW a juvenile Rana r. perezi (18440-441) found. 6.8 mi NW a Bufo b. spinosus observed DOR but not collected.

Casas del Costero, 7.1 mi (2110, 51°F, two), 3.6 (2140, 50°F), and .2 (2157, 52°F) mi SE Hyla a. meridionalis was collected (18439 [15]). Specimen heard in chorus at 6.9 (N, 10-15 specimen) and 3.9 (N) mi SE and a DOR specimen noted at 1.1 mi SE. Chorus seem less frequent now than in January or February (at least in this area). Bufo b. spinosus (18451) collected 7.0 mi SE at 2111 and at 2125 the rain started and one (1) Pelodytes punctatus (18445-18448) was collected (55°F) 5.2 mi SE. A juvenile Discoglossus p. pictus (18444 [6]) was collected 3.5 mi SE around 2141 and 50°F. .5 mi (2202, 49°F) and 2.6 mi NW P. punctatus (18445-448) collected AOR. Salamandra s. salamandra collected .5 (2202, 49°F), 2.8 (2219, 52°F), and 4.1 (2226, 55°F) mi NW and designated CMFS 18452-18455. 2.1 mi NW at 2212 and 54°F a Discoglossus p. pictus with a fungal (?) infection of some type collected AOR (18444 [6]). Hyla a. meridionalis (18439 [15]) collected at 2.3, 3.9 (2224, 55°F), 6.9 (2237, 55°F), and 7.2 mi NW while at 3.9 (2 specimen) and 4.7 (singular) mi NW were heard calling. Several snails noted on road at 3.9 mi NW and, at 7.4 mi NW a Rana r. perezi (18440-18441) was observed AOR. Alcalá de los Pozos, 7.3 (subadult), 6.7 (adult), and 6.5 mi SE Pleurodeles waltli (18456-18458) found AOR.

02 MAR 70

Pelobates cultripes (18449-18450) collected at 7.2 and 7.1 (2247, 57°F) mi SE. Hyla a meridionalis (18439[15]) collected at 7.1 (2247, 57°F); heard at 7.0 (large chorus) (N+S), 7.0-6.7 (whole area), 6.3, 5.8 (N), and 4.7 (N, 25-30 specimens) mi SE. Rana ^{a. peregrina} ~~scutellata~~ (18442-443) collected 5.8 mi SE, Salamandra s. salamandra (large adult [18452-18455]) at 1.0 mi SE and 2311 at 56°F, AOR, and Pelodytes punctatus (18445-18448) was collected at .8 mi SE under a clear sky. Rain previously mentioned terminated about 2200.

03 MAR 70

Ujir de la Frontera - Trafalgar - Los Caños - Chicland de la Frontera.

2025 - 2211

Ujir de la Frontera, 1.0 mi (E), 1.7 (E), 7.5 (E+W, small chorus), and 7.6 mi S. Hyla heard in chorus. Pelodytes punctatus (18463-464) caught at 1.1 (2036, 56°F) and 1.2 (2038, 54°F) mi S. Bufo calamita observed DOR 7.7 mi S.

Los Caños, 1.1 mi W. 2-3 Hyla calling from E. Hyla seems to prefer shallow, drainage type, areas as habitat. Two H. a. meridionalis (18460-18462) collected .9 (58°F, 2116) and .5 mi W. Bufo calamita (18466) collected and probably the first large aggregation of Bufo noted for this year, today. .4 mi W. a DOR B. calamita observed and Hyla heard at .7 mi W (S) which would place them in close proximity to salt water. One Hyla (18460-18462) collected 1.1 mi W. (2127, 54°F) in an area of sandy soil w/ many others heard. 1.5 mi NW a Triturus m. pygmaeus (18465) collected AOR at 53°F.

03 MAR 70

Chiclana de la Frontera, 1.7 mi E. at 2230 a Pelobates cultripes (18467) collected on N-340.

06 MAR 70

Trafalgar

Sunset (no wind, damp, 53°F) - 2042

Hyla calling from south, larvae in most ponds in area and they could be Hyla larvae although some large larvae were noted.

2014, 51°F (air) and 62°F (water) a Triturus m. pygmaeus (18468) collected in 3-4" of water. Seemed to be "foraging" on bottom. A larval salamander (ES 178) was collected in 62°F water and several (8-10) more were observed. Bufo was heard calling from south but species identification could only be guessed at as calamity ("educational guess"). At 2042 a Bufo calamita (18469) collected AOR.

09 MAR 70

Rota - Chipiona 2200 - 2320 55°F

Sky cloudy but not keeping heat on earth's surface -- no calls from frogs or crickets. Nothing, save mice (shrews?), active on road tonight. The air in particularly damp and temperature pockets as high as 61°F were noted.

Hyla a. meridionalis heard on Naval Base and one seen on road about 2300 hrs. R.H. 50%; B.P. 29.860 →; 55°F at 2305. 2320 END SURVEY.

11 MAR 70

Jerez de la Frontera - Arcos de la Frontera - El Bosque

1918 - 2230, 56°F, windy & overcast.

One subadult (1½" TL) Rana a. perezi found DOR 4.2 mi W. El Bosque and not saved. And that finished the survey -- nothing of ^{further} herpetological interest noted. The quiescence of the past two days is worthy of some note.

12 MAR 70

Algiciras - Los Baños - Casas del Castaño - Alcalá de los Sagales - Puerto Real - Puerto de Santa María - Rota (Naval Base)
1926 - 2330

Los Baños: Hyla a. meridionalis (CMFS 18474-18476) collected 1.3 and 4.5 mi NW at 1951 and 2012, 54 and 53°F respectively. The specim was seen or heard AOR 4.6 and 7.9 (heard from N) mi NW and was observed DOR 3.2 and 14.4 mi NW. Discoglossus p. pictus (CMFS 18484-18485) were collected 4.7 and 4.8 (juv) mi NW @ 2015, 52°F and with unrecorded details. One specimen was seen DOR 5.1 mi NW and not collected. Bufo b. spinosus (CMFS 18480-18483) were collected 4.8, 5.3, 6.7 (2030, 52°F), and 7.9 (2040, 51°F) mi NW. A juvenile was noted DOR at 6.8 mi NW and a sweet odor observed from parotid glands of DOR specimen at 7.4 mi NW. One DOR Rana a. perezi was noted at 4.8 mi NW.

Casas del Castaño: DOR Hyla a. meridionalis noted at 12.8 and 5.8 (44°F, 2135, raining) mi SE while a small (2-5 specimen) chorus heard 10.3 mi SE in an area of heavy land snail concentration. 1.7 mi SE, 2150, 44°F a Salamandra a. salamandra (CMFS 18470-18471) taken. The specimen was lethargic from the cold and it was raining heavily in the area.

Alcalá de los Sagales: 1.0 mi WNW at 44°F on AOR Pelodytes punctatus seen. 1.2 mi WNW a Salamandra a. salamandra (CMFS 18470-18471) taken at 2203 and 43°F. The rain is still cold and this specimen appeared active on the road or at least not or lethargic as the last one.

Puerto Real: Pelodytes punctatus (CMFS 18477-18479)

12 MAR 70

collected 3.8 mi (2306), 2.2 mi, and 1.1 mi E. In the area 1.1 mi E. a hedgehog was also noted DOR.

Puerto de Santa Maria, 4.1 mi SE one Phrynosoma wattsi (CMFS 18472-18473) collected and others seen. 4.0 mi SE another was collected while in process of moving to breeding pond at 2320. (NOTE: Pink ridge on belly may be an indication of breeding condition)

Rota, Naval Base, Pelobates cultus (CMFS 18486-18487) collected on perimeter road just east of the base.

15 MAR 70

La Barca de San Florida, Patauna de Rivera, Puerto de Santa Maria.

CALCULATED:

La Barca de la Florida, 1.7 mi W, 55°F,

1311 51.9

partial overcast, 1130-1230 am a larval series of

1403 52.5

(CMFS ^{CM 53045 53044} ~~18472~~ 18471) Pelobates cultus ^{S48 11/83, 6 E. WALT, 1 I MARMORATUS}, ~~Boys (?), Boys (?), and Blanchard~~

1409 52.7

taken in vernal pond with annual grasses constituting

1415 52.9

most of the bottom. Some frogs (probably Rana),

1422 53.1

Hirundo rustica, and the Black-backed Stilt also

1437 53.3

noted active in area. 4 mi W. a Black-backed

1446 54.1

Stilt was noted soaring on the property to the north.

1450 54.4

4.9 mi E. on CA-502, 1252, overcast and

1520 56.3

sunny, slight breeze, quiet, and 52°F. 1306 a subadult

1530 57.0

Scirtes schreiberi seen active, 1311 a Tammodromus

a. alpinus observed active low to ground. Red growth on Halimium halimifolium (L) (CISTACEAE), Leucadula stoechas L. (2 w/ purple flowers and reproductive parts), Cistus salviifolius (L) (CISTACEAE) complete plant with white and yellow flowers, and 2 other specimens of Genista triacanthos (LEGUMINOSAE) taken for reference purposes.

1403 one P. a. alpinus (CMFS 18488-18490) shot, 1409 P. a. alpinus

15 MAR 70

12.8°C

13.5°C
1520

seen, 1415 and an adult seen, 1422 another shot, and at 1437 the third specimen was taken. 1446 an adult Psammochromis a. algium was seen active in proximity of Chamaecypar humilis L. (PALMAE) which also seems to provide cover for Lacerta schreiberi. At 1450 a L. a. algium was shot but not saved and from 12.8°C 1500-1506 a L. schreiberi was stalked. It appeared to run from 10-15 feet between stops in "open" shade. just prior to end of survey at 13.5°C 1530 with a temp. of 57°F 13.9°C (overcast, occasionally sunny). 2 specimens of ES14 were collected for possible identification. Between Patena de Rivera and the La Barca - Jerez road a Carduelis chloris (FRINGILLIDAE) was seen active in fields at 1640 (about 2 mi. N. of Patena).

* Pelobates
cutleri

18 MAR 70

Puerto de Santa Maria, 1912, air = 55°F, water 56°F, overcast and sunny, and a series of larval frogs* (CMFS 18492) taken. 2 Matix maura seen active in pond bottoms and several ^{lowest} insects were collected.

Puerto de Santa Maria

1830-2200, 64°F, clear, sunny, slight SW breeze

1840 a Discoglossus p. pictus (18494-18497) found active and at 1850 another found at edge of vernal pond.1950, one Matix maura (CMFS 18493) under sand-board in field.

2000, ES 189-193 collected at 56°F at dusk.

2010 -- Hyla a. meridionalis (18500-18503) collected AOR and scattered choruses of Hyla noted.2015 -- D. p. pictus (18494-497) collected with Pelobates

18 MAR 70

culturipes (CMFS 18498-18499)2020 -- H. a. meridionalis (18500-18503) collected.2039 -- Pelobates culturipes (18498-18499) and D. p. pictus (18494-18497) collected AOR.2045 and 2048 -- H. a. meridionalis (18500-18503) seen AOR.

20 MAR 70

Jerez de la Frontera - San Barca de la Florida

1600 - 1815

Jerez de la Frontera; 3 mi. E. a Mulpolon m. monosperulorum seen DOR at 1618. 10.7 mi E. a Matix maura (CMFS 18504) collected fresh DOR at 1634 and 71°F.

San Barca de la Florida, 4.9 mi E. on CA-502.

1645-1815, 72°F, and clear w/ SW wind.

1716 -- sub-adult Lacerta schreiberi active around Phillyrea angustifolia L. (Oleaceae).1730 -- Psammochromis a. alpinus collected on Chamaerops humilis L. (Palmae).1740 -- Lacerta schreiberi sub adult seen on Ulex sp.1752 -- L. schreiberi adult seen active and at 1815 the survey ended at 67°F. temperature.

29 APR 70

Rota - Chipiona Road

R.H. 64%, BP 29.880" and ↑, 58°F, 2005 - 2230

Rota, .7 (2115), .9 (52°F), 1.2 (juv. [2]), and 4.0 mi W at 2200 and 52°F (5) Pelodytes punctatus (18507[5]) collected AOR. 2.5, 2.6, and 2.3 mi W. Pleurodelus waltli (18508-18511) collected. 2.5 mi W. a H. a. meridionalis seen AOR during small shower (18513) and at 2.6 mi W (2212, 50°F) a Pelobates culturipes (18512) found AOR.

10 APR 70

Puerto de Santa Maria - Puerto Real - ^{Chiclana} ~~Chiclana~~ de la Frontera - Vejer de la Frontera - Torija - Algeciras - Los Barrios - Facinas - Vejer - Rota.

2115 - 0239, 58°F, clear skin w/ rain last night.

Vejer de la Frontera; 11.8 mi SE at 2225 on N-340 one Hyla a meridionalis (CMFS 18514) collected.

Algeciras; 5.7 mi N on H. a meridionalis (18515) collected and a chorus of 10-15 specimens noted.

Facinas; 13.2 mi NE, 2355, 54°F, one Desmognathus p. pictus (18516-18517) collected.

11 APR 70

Facinas, 12.2 mi NE, 53°F, one juvenile D. p. pictus (18516-18517) collected AOR. 5.5 mi NE, 0054, 50°F, one Bufo b. bufo collected AOR. 20 mi NE, 0109, 52°F, one large adult Pelobates cultripes (18518) collected.

11 APR 70
~~12 APR 70~~

Jerez de la Frontera - Jidula - Arcos de la Frontera - Barro - Villamartin - Algodonales - Olvera - Setenil - Villaluenga - Benacay - El Bosque.

1235 - 2050, sky clear - partly cloudy.

Bornos, 2.8 mi NE, 1357, 8 Muremys c. leprosa seen and 1 Lacerta ^{legida (503 1/8)} ~~schruberi~~ seen but not collected. Muremys in Rio Guadalete which now has a much receded water line (10' in width, at least).

Algodonales, 3.0 mi SW, 1445-1517, three (3) L. muralis ssp (CMFS 18520-18522) collected in vicinity of Rio Guadalete on S. side of bridge. All shot while sunning themselves in 67°F temperature, slight wind, overcast skies (cumulus clouds). 7 mi SW two (2) L. schreiberi seen on stone wall at 1526. ES 194 was taken 1.7 mi NE at 1551 on a stone wall.

11 APR 70

Olvera, 7.8 mi SW, one (1) L. ~~scheibei~~ = lepidus 8/13 1/81 seen sunning on S. side of ravine at 1626 but not collected. 2.0 mi. SE at 1715 one Lacerta muralis ssp (18523) shot from bridge (62°F).

El Bosque, 7.0 mi SW one Malpison m. monspessulorum seen DOR about 2050.

12 APR 70

Jung de la Frontera - Medina Sidonia - Bernalup de Sidonia - Cabo Trafalgar. 1200 - 2015.

Bernalup de Sidonia, 5.9 mi W. in an area of a small fast creek with stony bed and very wet soil, banks lined with "Beech" trees, 1330-1400, specimens

ES 195-198 and ES 207 collected along with one Matrix maura (CMFS 18526) in a pile of rocks along stream bed.

Discoglossus was heard calling and believed seen in stream "oxbow" lakes. 64°F and some intermittent rain in area.

6.6 mi W., 1430-1505 two (2) large adult Lacerta schreibei (CMFS 18533-18534) collected under large rocks in mossy soil. Two Pleurodela walli (CMFS 18531-18532) also found in rocky areas along with ES 199-206 at 70°F.

Rana r. perezi noted active and D. p. pictus heard calling. 1.3 mi E. at Rio Barbate, 1600-1630, two (2)

Tarentola mauritanica (CMFS 18528-18529) shot from S side of bridge and one (1) Psammochromis a. algerius (18527) shot in cactus area on N. side of bridge. Cloudy at this point with sporadic sunshine. 2.8 mi E (66°F, 1700)

one subadult L. schreibei (18530) shot and one Matrix maura seen under overcast and relatively sunless skies.

4.4 mi E. one L. schreibei seen at 1730 and at 4.5 mi. E. one large adult L. schreibei (18535) found in a pile of rock @

SAB 10/13/2014

12 APR 70

1740 and 65°F.

Cabo Trafalgar, 1945-2015, a series of ⁴ Pleuroschelus wall larvae* (18524) taken (air temp = 58°F; water temp. = 67°F) and Hyla a. meridionalis heard calling from ponds in the area.

13 APR 70

Jerez de la Frontera - Arco de la Frontera - Junta de los Rios - La Barca de la Florida.

1650-2200, 70-60°F.

Junta de los Rios, .4 mi. N. a Psammochromis a. algirus seen active on a stone wall and one Lacerta muralis also observed active at 1745.

La Barca de la Florida, 4.9 mi. E. on CA-502. 1800-1932 76°F ^{74.4} and no wind at start.

1806 an adult P. a. algirus (18536-18539) shot.

1818 another adult P. a. algirus seen.

1823 P. a. algirus shot while sunning.

1838 P. a. algirus (18536-18539) sub-adult shot.

1840 P. a. algirus juvenile shot.

1842 Sub-adult P. a. algirus seen but not collected. ^{22.8} 508 12-1-2018 EPIDALEA CALAMITA ~~Bufo calamita~~ (508 12/83)

CM 53146

1900 and 73°F at 1932 a small Tritops series (CMFS 18543) taken in a vernal pool. The pool was non-existent last month or at least between the last collection at this location and now. Water temperature 78°F, air temperature 71°F ^{21.7} 1939 ^{25.6}

La Barca de la Florida, 3.4 mi W. at 2028 a Hyla a. meridionalis (CMFS 18540) taken AOR (61°F). 2.4 mi W. at 2034 (62°F) and one Bufo calamita (CMFS 18541) taken AOR and a few Hyla were heard calling.

CM 53139-53142
 2 M
 2 F

3 APR 70

Jerez de la Florida, 9.3 mi W. a Rana s. perezi
(CMFS 18542) taken at 2140 (60°F) AOR.

16 APR 70

Puerto de Santa Maria - Naval Base.

1830 - 2220, 71°F - 64°F.

TAGED SERIES
(32-41) AT
LSNM
198531

M 60229 =
PELODYTES
IBERICUS
FROM 18544

Pto. de Sta. Maria - clear sky, high today was in 80s.
a series of Pelobates cultripes (CMFS 18544 [171]) larvae
taken in 64° (air) and 71° (water) temperature. Three
(3) Matrix maura (CMFS 18546 - 18548) and a Pleurodeler
waltl (18545) taken within confines of pond on area. Most
of the area is drying up now or at least beginning to.
Naval Base

2200 - 2220, 61°F (air), 68°F (water)

One Rana s. perezi (CMFS 18549) taken in pond
and a series of 49 Pleurodeler waltl (18553) larvae
taken along with three (3) adults (CMFS 18550 - 18552). Pond
water level decreasing and no alligators were noted.

25 APR 70

Jerez de la Frontera - Arcos de la Frontera - El Bosque - Benamahoma -
Grazalema - Villaluenga - Benaocoy - El Bosque.

Clear sky, 62°F. 0900 - 2100 hrs.

Arcos de la Frontera, 6.0 mi. E. two (2) DOR. Protonotaria
a. algirus at 1037 freshly killed. 6.1 mi. E. an AOR Lacerta
schreiberi at 1041. 8.7 mi E. an AOR Macropododon
excellatus believed seen. 10.7 mi E. at 1110 and 82°F
a Lacerta muralis observed active on wall of a bridge.
12.0 mi. E. at 1116 one sub-adult Lacerta schreiberi
seen sunning on road in 74°F temperature.

El Bosque, 8.9 mi. W. at 1124 and 74°F ES 214 collected.
7.2 mi W a Chalcidula s. striatula (?) seen on road at
1130 and 74°F. 7.0 mi W. an adult L. schreiberi seen

25 APR 70

on road at 1130 and 74°F. 5.0 mi W. at 1138 and 73°F
a L. schreiberi crossed road. 4.3 mi. W. a DOR L.
schreiberi seen.

Benamsoma, 2.6 mi W. at 1200 and 75°F one
Lacerta schreiberi seen active on road (small sub-adult).
0.2 mi E. one large adult Lacerta schreiberi seen
at 1240 and 82°F. 0.8 mi E., 1250, 82°F. Lacerta
schreiberi seen sunning. 2.0 mi E., 1330-1500, 83°F, in
an elevated plateau on a gentle slope with a ground
cover of Halimium halifolium (L) (CISTACEAE) and several
Ulex, Quercus suber in small groups, and many
granite outcroppings. a Pseudomorphus a. algerus
seen active from 1400-1430 and one Lacerta schreiberi
came out to sun. One Lacerta muralis shot off
bridge (adult) [CMFS 18569-18576].

Grazalema, 4.0 mi. W., 1545-1550, two Lacerta
muralis (18569-76) shot while in 73°F direct sun. Terrain
rocky montane and Ulex and thorns dominant plants.
3.45 mi W., 68°F, 1615-1620 one L. muralis shot from
large stone retaining wall (18569-76). 2.9 mi W.,
1647, 73°F, 2. Lacerta muralis observed on a wall.
2.6 mi W., 1700, 72°F, Lacerta muralis shot from
stump at 72°F; others noted in area. 2.3 mi W., 1730-
1753, 63°F, one Lacerta schreiberi seen, 3 L. muralis
(CMFS 18569-76) shot, 1 Pseudomorphus a. algerus (18577)
shot. Lacerta muralis (18569-76) shot from stone wall
and stones in field. Apparently catching last rays of sun
for the day. P. a. algerus seen in rocky areas and was
the only specimen seen. ES 215 collected.

25 APR 70

Bonacay,

El Bosque, 2 mi. E. @ 1942 a Malpasón
m. monspessulanus found DOR.

26 APR 70

La Barca de la Florida, 4.9 mi. E. on CA-502

0700 - 1524 52°F - 75°F

0658 a Red-legged Partridge Alectoris rufa.

0750 start survey

0757 Psammochromus a. algerius seen on ground
 under Quercus coccifera.

0800 P. a. algerius seen on ground.

0806 P. a. algerius collected on brush pile
 while maneuvering himself into a place to sun. (18578-585)

0809 Subadult P. a. algerius seen on lower
 branches of shrubbery.

0820 P. a. algerius active on lower branches of Ulex
 and Q. coccifera.

0823 P. a. algerius shot in Phillyrea angustifolia L.

0831 P. a. algerius seen under Phillyrea and Ulex.

0834 juvenile P. a. algerius seen under P. angustifolia L.

0837 Acanthodactylus e. erythrinus seen and rabbit
 noted.

0841 64°F

0900 68°F

0907 A. e. erythrinus under Quercus coccifera
 (CMFS 18586-95)

0918 Locusta schreiberi seen on Halimium halimifolium

0924 ES 216

0930 P. a. algerius taken under Quercus coccifera

0936 P. a. algerius seen under P. angustifolia L.

26 APR 70

0941 Acanthodactylus e. erythrinus shot in open sun while foraging

0946 A. e. erythrinus shot under Halimium halifolium
 ⇒ Adult in ecdysis.

0950 P. a. algirus in Chamaerops humilis L. (PALMAE)

0952 P. a. algirus shot under H. halifolium while foraging on ground.

1001 P. a. algirus seen in area of Gentista

1006 P. a. algirus shot from leaves of Myrtus communis L.

1015 Sub-adult Lacerta schreiberi noted

1018 Psammochromis a. algirus shot on ground under Myrtus while sunning.

1026 adult P. a. algirus active on top of Myrtus and Ulex.

1040 Sub-adult P. a. algirus shot

1044 70°F

1115 ES 217 collected

1130 72°F

1135 A. e. erythrinus shot in open sun (18586-95)

1137 A. e. erythrinus adult shot while sunning and a juvenile shot while sunning on Ulex.

1147 Bufo b. spinosus (18597) collected

1157 adult A. e. erythrinus shot under A. coccifera

1211 P. a. algirus shot under Chamaerops and lost.

1223 One (1) Lacerta schreiberi and P. a. algirus seen active in and around Myrtus

1229 Bufo salamita (18596) under P. angustifolia L.

1315 74°F

26 APR 70

- 1340 Acanthodactylus e. erythrum shot near road.
 1356 A. e. erythrum shot
 1409 Psammodesmus a. algirus seen in Chamaecrass
 1419 P. a. algirus seen active in Halimium.
 1444 P. a. algirus active in Halimium
 1445 P. a. algirus juvenile active under Cistus

crispus (CISTACEAE)

- 1451 P. a. algirus seen under Q. coccifera
 1524 75°F. End

STAGED
 SERIES
 USED FOR
 MOUTH PART
 ILLUS. =
 USNM
 198532

La Barca de la Florida, 1.9 mi. W. on
 CA 502 (171) Pelobates culturier (18598) larvae collected
 along with (18) Pleurodeler waltl (18599) larvae and
 a small series of larvae containing, ~~perhaps~~, see Hyla ^{MERIDIONALIS} (CMFS
 18600) = CM 53051 1530-1610, 70°F (air), 78°F (water).

03 MAY 70

El Bosque - Galis - Jimena de la Frontera

1100-1600 hrs, 75-88°F.

El Bosque, 5.0 mi. W. a DOR P. a. algirus noted
 Galis, 2.0 mi E in a cool mountain stream one
Rana a. perezi (CMFS 18603) collected and a Lacerta muralis
 (CMFS 18608-18614) taken off wall of bridge between 1230-1240.
 1.2 mi. E. a Tarentola mauritanica (CMFS 18604) and
 a Lacerta muralis (CMFS 18608-18614) shot from side of
 bridge. .9 mi. E. a P. a. algirus (CMFS 18605-18607)
 shot while foraging in rock filled meadow. .7 mi E.
 on another bridge Lacerta muralis (18608-14), P. a. algirus
 (18605-18607), and Tarentola mauritanica ~~collected~~ observed.
 (Those noted were collected).

Jimena de la Frontera, 5.1 mi. NW at 1530

03 MAY 70

a Lacerta schreiberi (CMFS 18615) and a Psammotrogon
 a. algirus (CMFS 18605-18607). 4.1 mi. NW at 1550 a
L. muralis sp. collected from bridge. 2.5 mi NW at 1630
 a Lacerta muralis (18608-18614) shot and one observed.
 1.8 mi NW (2) Lacerta muralis (18608-18614) shot and
 a Kestrel observed. 9 mi NW (Falco tinnunculus)

5 MAY 70

Puerto de Santa Maria, 1.8 mi ESE.

1911-2020, SW wind to 20 mph, 65°F-61°F.

1942 - Matrix maura (CMFS 18616) found under
 papers in field.

1954 - Discoglossus p. pictus (CMFS 18617-18)
 collected under board in muck soil.

1955 - Pleurodela walli (18619) found in wet
 cardboard. 2 spiders (ES 219-220) taken.

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.

7 MAY 70

Rota - Algeciras - Los Barrios - Casas del Castaño.

2100-2400.

Road to Algeciras empty. SW wind, 55°F, shy
 cloudy and with cumulo-nimbus clouds.

Los Barrios, 3.0 mi NW one night-jar seen AOR
 and 4.6 mi NW another caprimulgid seen and red eye-shine
 noted hovering over road.

Casas del Castaño, 2.2 mi SE a DOR Lacerta
schreiberi seen. 7.9 mi NW a Discoglossus p. pictus seen
 active at 2220 and 50°F but not collected.

8 MAY 70

Rota - Chipiona Road

Very windy, 2155-2300, 55°F.

8 MAY 70

Rota, 2.3 mi W. at 2155, 55°F, 3 juv Pelobata cultrepi (18625 [19]) collected and at 2.4 mi W 3 more picked up. 2.5 mi W (2) Pleurodela waltl found DOR but not saved. 2.6 mi W. 2 P. cultrepi collected and a few (3-4) others seen. 2.5 mi W. a large series of P. cultrepi collected and at 2017, 55°F 2.4 mi W one large adult Pleurodela waltl and one Pelobata cultrepi collected. The area 2.1 - 2.6 mi W. of Rota seems to be a heavy area for Pelobata collection just after transformation of larvae.

13 MAY 70

Jerez de la Frontera - Medina Sidonia - Vejer de la Frontera - Chiclana de la Frontera - Puerto Real - Puerto de Santa Maria - Naval Base
1914-2300 hr.

Jerez de la Frontera, 9.9 mi SE on C-440 @ 1932 and 64°F one Carduelis carduelis (FRINGILLIDAE) (ES 242) collected. Hirundo rustica also seen. 4.8 mi NW Medina Sidonia a 4 1/2' Elaphe scalaris noted D.O.R. at 1950.

Medina Sidonia, 3.7 mi S @ 2024 a DOR Elaphe scalaris was noted. 8.3 mi S @ 2042 and 55°F one Bufo b. spinosus (18629-18633) collected AOR. 9.4 mi S @ 2052 and 54°F a juvenile Elaphe scalaris (18628) taken AOR. 9.9 mi S @ 2057 and 59°F one Bufo b. spinosus (18629-33) collected in wet, sandy soil of road.

Vejer de la Frontera, 6.7 mi N. @ 2100 and 53°F one Bufo b. spinosus (18629-33) collected AOR. 6.3 (52°, 2106) and 6.2 (51°, 2105) mi N. (2) more B. b. spinosus (18629-18633) collected.

Puerto de Santa Maria, 1.1 mi N. @ 2238 and 58°F a Nyctalus meridionalis was collected AOR (CMFS 18627).

14 MAY 70

Puerto de Santa Maria - Rota - Chipiona - Rota.

2200-2400

Puerto de Santa Maria, 1.8 mi ESE one Pelobater
cultus (18642) collected.

Rota - Chipiona Road.

Pelobater cultus (18641 [34]), Pleurodeler walli
(18637-40) and Pelodytes punctatus (18634-18635) collected
and 4.3 mi W. Rota one Macroprotodon cucullatus
(18636) found fresh D.O.R. @ 2350. 6.9 km NW

at 2400: R.H. 70%, Winds SW 10-15 mph, 64°F.

6 MAY 70

Boranga, 4.3 mi N.

1130-1530, Sunny & Clear. Area of Cistus crispus, Halimium
halimifolium L., Pinus pinaster L., and substrate of sand and
Pinus medlar. Ulex and Chamaecypar absent, conspicuously so!
Acanthodactylus e. erythrus (18643-18671), and Psammochromis
a. alpinus (18672-18676) collected, Lacerta schreiberi seen.

1745-1820: P. a. alpinus (70°F and 1747) seen.

1820 = 65°F

Pica pica (Corvidae) seen 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 H. halimifolium as basic cover and
Juniper is also present. Area seems to have more A.
e. erythrus than P. a. alpinus.

Boranga, 7.0 mi N one Natrix maura (18678) taken
@ 1920 ± 65°F.

17 MAY 70

Jerez de la Frontera - La Bodega de la Florida - San José del
Valle - Alcalá de los Gazules - Casas del Castaño - Los Barrios -
Algeciras - Tarifa - Vejar de la Frontera - Chiclana de la Fra - NAVBASE

17 May 70

0655 - 2032

La Barca de La Florida, 4.5 mi E on CA-502. (0756-1100)
 0728 (53°F) and area fenced in w/ barbed wire now.

a Malpala m. monspessulorum skin found on area.

0756 - Psommodon a. algius active in Quercus coccifera

0758 - P. a. algius seen active on Chamaerops

0805 - P. a. algius seen in Chamaerops

0808 - P. a. algius seen on Q. coccifera

0810 - 0814 - P. a. algius on Chamaerops

0820 - P. a. algius seen active

0822 - P. a. algius seen in Chamaerops

0851 = 60°F (65°F in sun)

0851 - P. a. algius seen in Q. coccifera

0909 - P. a. algius under large clump of grass.

0914 - P. a. algius seen active in Pistacia lentiscus L.
 (Anacardiaceae)

0915 - P. a. algius taken from P. lentiscus L. (destroyed subsequently)

0922 - P. a. algius in Chamaerops and noted that
Ulex no longer bears flowers.

0950 - P. a. algius seen in Chamaerops

0957 - Acanthodactylus e. erythrum seen in P. lentiscus
 and under Halimium halimifolium

1000 - Rabbit seen.

1009 - A. e. erythrum under Lavandula, Halimium, and
 into Quercus coccifera.

1026 - Lacerta schreiberi seen in Quercus coccifera

1029 - Lacerta schreiberi sub-adult seen.

1100 - 70°F (ambient) 72°F (sun)

Halimium halimifolium dominates this particular area.

17 May 70

San José del Valle, 2.3 mi SSE one Coluber hippocrepis noted D.O.R. at 1215. One adult Lacerta schreiberi seen at 1225 3.5 mi SSE (A.O.R.) and a sub-adult L. schreiberi seen 4.3 mi SSE. 5.9 mi SSE a D.O.R. Malpison m. monspessulanum noted and another MM m. monspessulanum at 7.1 mi SSE.

San José del Valle, 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.

San José del Valle, 8.6 mi SSE one Lanius senatus (LANIIDAE) seen @ 1325.

Alcalá de Los Sagales, 6.6 mi ESE one Delichon urbica (HIRUNDINIDAE) and several Hirundo rustica observed. a pair of nesting Himantopus himantopus (RECURVIROSTRIDAE) were observed on edge of pasture/woodlot area. One Mauremys c. 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.

Casas del Castaño, .5 mi S. one Rana esculenta (CMFS 18681) captured and one Rana r. perezi photographed at 1515 hr. 1.5 mi W. at 1531 one L. schreiberi (18686-18689) taken from under rock in montane area. 1535 = 76°F.

a Macropododon cucullatus (18688) taken from under rock in damp soil w/ ants at 1530. 1.7 mi. W. between 1550-1555 at 74°F four (4) Tamias mauritanica (18682-18685) shot from culvert and one (1) juvenile observed. 1.7 mi W. a centipede was taken from under rock in dry bed of stream. 2.4 mi. W. at 1612 hr one Mauremys c. leprosa in small pond. 3.3 mi W.

17 MAY 70

one Lacerta schreiberi seen at 1624. 3.6 mi W. one L. schreiberi observed at 1628. .8 mi W. at 1637 one L. schreiberi (18686-18687) shot. 5.8 mi ESE 2-3 Mauremys leprosa and one L. muralis seen.

Algeciras, 3.2 mi SW one L. schreiberi seen D.O.R.

Vejer de la Frontera, 9.9 mi ESE on N-340 one Matrix maura seen D.O.R. and 7.0 mi ESE @ 1922 and 75°F one AOR M. maura (18689)^{CMFS} seen. 4.3 mi WNW a D.O.R. L. schreiberi noted

Chiclona de la Frontera, .3 mi N a Malpaso m. monspessulanum seen DOR @ 2010.

10 MAY 70

Naval Base - Puerta de Santa Maria.

8:55 pm (W.R. Maxwell) recorded a Malpaso m. monspessulanum DOR between Naval Base Puerta Santa and I to San Lucas (9.7 mi E. of Naval Base).

1825-2200, 73°F.

1847 - one Psemmodromus a. algerius taken from ES 248 (CMFS 18654)

1850 - one (1) juvenile Discoglossus p. pictus seen but not collected.

1855 - One adult P. a. algerius seen in ES 246. (low coniferous bush)

1857 - 1 Matrix maura adult seen dead in field, cause unknown.

1945 - 70°F

1954 - D. p. pictus juvenile under rock (18698 [14])

1955 - Lacerta schreiberi taken under rock in depression which used to be a vernal pond filled w/ water.

1957 - D. p. pictus juv. picked up in damp soil under rock. (18695 [142])

20 MAY 70

2000 - Two (2) D. p. pictus under rock in same area.Rattus observed2005 - D. p. pictus found under rock in area of Juncus
~~acutus~~ acutus L. (Juncaceae)2027 - D. p. pictus (2) under board2030 - D. p. pictus (5) under rock and paper in wet
mud.2033 - Matris maura (18696) found under rock in warm/
damp soil.

2040 = 66°F

2050 - 2112 : Larval series taken containing P. cultus
(18701) and P. walsh (18699-18700). 2112 = 68°F.

Area dominantly Juncus acutus L. (JUNCACEAE) with
Cistus crispus L. (CISTACEAE) at top of sandy knolls.
Contains some Halimium but Cistus is clearly more abundant.
Lowland areas which contain depressions are surrounded by
grass (ES 247) and the Pinus pinaster area contains a
juniper like shrub (ES 246) which is clearly second only
to Cistus. Halimium may require a more sandy soil or
perhaps less moisture than that to which this area is subject.

2140 - P. cultus (18697) and ES-255 taken.

22 MAY 70

Vejer de la Frontera - Facinas - Tarifa - Los Barrios

1709 - 2137

Vejer de la Frontera, 7.3 mi ESE on N-340 one L. schreiberi
seen AOR and one DOR at 1826. 8.5 mi ESE one Malpica
m. monspessulanum seen DOR. 12.1 mi ESE one Matris maura
D.O.R. @ 1832. 14.1 mi ESE @ 1845 a M. m. monspessulanum
seen D.O.R. 19.4 mi ESE three (3) L. schreiberi seen on rock
by intermittent stream at 1849 and 80°F.

22 MAY 70

Facinas, .6 mi E. and 1 mi S. on unmarked road at 1908 and 73°F one Rhiza a meridionalis (18704) from stone wall in reflected sunlight. 1.8 mi S. on unmarked road at 1921 (71°F) one juvenile 1 L. schreiberi seen and an adult Hemidactylus turcicus (18705) taken under rock. 2.0 mi. S. at 1931 one L. muralis shot at on culvert. 2.6 mi S. one large spider picked up. 3.0 mi. S. at 1949 and 70°F a L. schreiberi seen on stone wall.

23 MAY 70

L of C-440 with road to Facinas 0902-1800.
 SW 0.2 mi ~~SW~~ @ 0902 and 71°F Tarentola mauritanica (18710-18720) and Lacerta muralis shot from culvert while sunning. .3 mi SW @ 0919 and 72°F one T. mauritanica and one young Coluber hippocrepis seen on stone abutment. .4 mi SW @ 0924 and 77°F one adult L. schreiberi seen, 2 adults L. muralis observed, and 4-5 T. mauritanica seen (2 collected [18710-18720]) seen on wall. One L. muralis (18733-18741) taken at 0930 (73°F). .5 mi SW on T. mauritanica found on retaining wall. and @ 0937 one L. schreiberi and a juv. T. mauritanica seen on retaining wall at 74°F. .8 mi. SW @ 0939 and 72°F one T. mauritanica adult seen on abutment. 1.1 mi. SW at 0947 and 72°F a T. mauritanica (18710-18720) shot from bridge. 1.2 mi SW another T. mauritanica seen. At 0950 (74°F) a L. muralis ^{seen} and a Psammochromis a. algirus (18707-18709) shot while sunning on rock. Bare plant cover = Sentista. 2.3 mi SW @ 1011 and 73°F one L. schreiberi shot while sunning (18721-18732). 2.9 mi SW (1024, 77°F) one L. schreiberi (18721-18732) shot off wall. 3.8 mi SW is a fresh water stream (rapidly moving) in which Rana r. perezi was observed to be quite active. Rana esculenta believed seen

23 May 70

(No medio-dorsal line) but 4.0 mi SW at 1100, 72°F a juv. P. a. algirus noted in Gentista (few Q. suber in area) Quercus not at all common in area. 4.2 mi SW at 1106 and 82°F one juv. L. schreiberi (18721-18732) shot. 4.4 mi SW (1109, 75°F) one L. schreiberi subadult seen running. 4.5 mi SW (1112, 76°F in sun) Rana perezii seen on rock and at 1115 (75°F) one L. muralis (18733-18741) shot. 4.8 mi SW (1121, 75°F) a L. schreiberi (18721-18732) shot. 5.0 mi SW (1130-1210, 74°F) in an area of an elevated plateau, a clearing between Q. suber areas, 2 Lacerta schreiberi (18721-18732), 1 Lacerta muralis (18733-18741) under rock, and a Bufo b. spinosus (18706) collected. One juvenile L. schreiberi seen and ES 256-261 were captured under rocks. 2 specimens each of major plant types were collected. 5.1 mi SW @ 1225 and 78°F a I. mauritanica seen on bridge. PUENTE DE HIERRO (?)

⇒ Intersection to SE at 6.4 mi SW.

.1 mi SE, 1243, 78°F one L. muralis (18733-18741) taken from bridge. .8 mi SE, 1252, 72°F a L. schreiberi seen and at 1304 (73°F) another noted in area of Myrtus communis with Q. suber also present. .9 mi SE a L. muralis (18733-18741) shot at 1327 and 73°F. 1.5 mi SE at 1348 and 70°F, three (3) I. mauritanica seen and one (1) collected (18710-18720) along with one P. a. algirus (18707-18709) sub-adult collected. 1.6 mi SE two I. mauritanica seen @ 1442 and 70°F. 2.0 mi SE at 1449 and 70°F and one P. a. algirus (18707-18709) collected. 2.1 mi SE. at 1454 and 69°F one Lacerta schreiberi shot (CMFS 18721-18732). 2.3 mi SE a L. muralis observed alive on a wall at 1459 and 68°F in a heavily wooded area covered with Ulex.

23 May 70

Q. ruber, Myrtus communis, and Podiaceae. 3.2 mi SE at 1512 and 66°F one Lacerta muralis (18733-18741) shot from retaining wall. 3.3 mi. SE at 1516 and 77°F one sub-adult L. schreiberi (CMFS 18721-18732) and at 3.4 mi SE at 1518 and 71°F a gravid L. schreiberi (18721-732) shot. 3.4 mi SE at 1522 and 71°F a L. muralis (18733-18741) shot. 2.4 (1540, 75°F) and 2.3 (1542, 72°F) one L. schreiberi seen and at 2.1 mi SE at 1543 and 69°F a T. mauritanica observed. 1.8 mi SE at 1547 and 74°F a L. schreiberi young adult seen. 1.5 mi SE (1552, 72°F) two T. mauritanica (18710-18720) collected on stone abutment. 1.4 mi SE at 1558 and 75°F an adult L. schreiberi (18721-18732) shot and at .8 mi SE at 1607 and 74°F another L. schreiberi adult shot.

Facinas, 9.7 mi NE @ 1615 and 75°F a L. muralis seen on abutment on main road. 9.3 mi NE at 1620 and 71°F a L. schreiberi seen. 8.3 mi NE @ 1629 and 72°F a sub-adult Tarentola mauritanica seen and two (2) were shot off SE wall of abutment. 7.6 mi NE at 1634 and 75°F. 7.5 mi NE @ 1639 and 75°F two Lacerta muralis shot from bridge and only one saved as 18733-18741. 7.4 mi NE at 1642 and 75°F one T. mauritanica shot and an adult + sub-adult were observed. 7.0 mi NE at 1646 and 72°F one L. schreiberi and one L. muralis seen but not collected. 4.1 mi NE at 1656 and 69°F one L. schreiberi (18721-732) shot and at 1700 (72°F) another crossed the road.

Toufa, 10.2 mi. NW a DOR Malpighia m. monspeliensis seen and at 9.2 mi NW a DOR L. schreiberi noted.

Los Barrios, 4.0 mi N. Rana r. perezi calling from

23 MAY 70

rapidly flowing - fresh stream in area. 1800: END survey.

24 MAY 70

Los Barrios - San Roque - San Enrique - San Martin del Tesorio - Sotogrande - Guinaldo - Algeciras - Tarifa - Vejer de la Frontera - Puerto Real.

0903 - 1700

Los Barrios, 4.2 mi. N. @ 0903 one L. schreiberi seen.

San Enrique, 1.4 mi NE a DOR Malpison m. monspeliensis seen but not saved and 2. Lacerta schreiberi were seen in area.

San Roque, 1.2 mi SW @ 1030 and 75°F a Matrix maura seen D.O.R. and .5 mi SW (2) L. schreiberi DOR @ 1136 + 70°F.

Sotogrande, 2.7 mi SW one AOR L. schreiberi (18746) taken @ 1045 and 75°F. Previously injured. .8 mi NE two (2) Lacerta schreiberi sub-adults noted DOR.

Algeciras, 2.2 mi N. @ 1145 one L. schreiberi seen DOR.

Tarifa, 4.6 mi NE and Vicinity Puerto del Cabrita. 5.0 mi NW one L. schreiberi seen. 5.5 mi NW, windy, 76°F, at 1300 a L. schreiberi seen on road. 7.3 mi NW a Tarentola mauritanica seen on granite outcropping. 7.1 mi NW a L. schreiberi seen and at 5.5 mi NW at 1345 and 79°F a T. mauritanica (18743) shot from bridge. 4.4 mi NW

between 1415 and 1445 a series of ^{HYLA MERIDIONALIS} ~~Rana~~ larvae (18745) taken along w/ one adult (18744) from a pond with a rapidly moving, stone-bottomed, stream supplying its water. TEMPS: 68°F (H₂O) and 76°F (air). A Matrix maura was seen

in the pond foraging under loose rocks and a lizard was also seen -- species unknown. 1.9 mi NW at 1452 and 73°F a

L. schreiberi seen. 1.3 mi NW at 1457 and 70°F another L. schreiberi noted.

588
12-1-2018

24 MAY 70

Tarifa, 1.8 mi NE a DOR Lacerta schreiberi noted at 1510. 10.8 mi NW another L. schreiberi seen and at 1526, 11.2 mi NW a fresh killed DOR Malpalam m. monspessulanus noted. 14.0 mi NW on N-340 an adult DOR M. m. monspessulanus (18747) and an adult DOR Natrix maura (18748) ~~collected~~ seen. A juvenile M. m. monspessulanus (18746) also taken in the area at 1532 and 77°F.

Vejer de la Frontera, 12.2 mi SE a DOR Malpalam m. monspessulanus noted. 11.3 mi SE & 10.6 mi SE L. schreiberi seen DOR. 7.3 mi SE an AOR Natrix maura (18749) collected. 4.3 mi NW a L. schreiberi seen DOR and at 6.5 mi NW a Malpalam m. monspessulanus ^{noted} ~~taken~~ DOR. 12.2 mi NW another Malpalam m. monspessulanus seen DOR.

Puerta Real, .5 mi NW on N-340 a Lacerta schreiberi seen DOR and at 1700 the survey ended.

W.R. Maxwell reported a Malpalam .8 mi SE of Chiclana de la Frontera @ 1100 hr and gave an estimate of 30-36 inches as total length.

25 MAY 70

Puerta Real - I to C-440 - Puerta Real.

2056 - 2235 hr

Puerta Real, 1.1 mi E. at 2105 a Hyla a. meridionalis seen active on road at 70°F. 1.9 and 2.9 mi E hedgehogs were noted. 4.4 mi E, 2110, 70°F a Lacerta schreiberi (18752) was collected DOR. 5.2 mi E. a Pelobates cultripes (18755-18761) was taken followed by a Rana a. perezi (18753) at 6.3 mi E (2130, 68°F). 7.4 mi E. a DOR P. cultripes was noted. 7.7 mi E. a Hyla a. meridionalis (18754) collected A.O.R. 9.1 mi E. four (4) P. cultripes (18755-18761)

25 MAY 70 taken at 2215 and 66°F. 5.2 mi E, 2230, 67°F. and an AOR Pelobates cultriger (18755-18761) collected. 1.9 mi E. another P. cultriger taken A.O.R. and at 1.5 mi E., 2235, 65°F the final P. cultriger (18755-18761) for the evening was collected.

26 MAY 70 Jerez de la Frontera - El Cuervo - Jerez de la Frontera - Puerta de Santa Maria.
1900 - 2032, 73°F.

Jerez de la Frontera, 4.7 mi NNE on N-IV one Malpison m. monspessulanus noted DOR.

28 MAY 70 Naval Base - Jerez de la Frontera - Benalup de Sierrita - Alcalá de los Gazules - Casar del Castaño - Los Barrios - Tarifa - Viver de la Frontera - Chiclana de la Frontera.
1600 - 2320, 74°F.

Naval Base, 1610 hr one Matix maura noted DOR outside Pto. gate.

Jerez de la Frontera, 19.4 mi SE one AOR L. schreiberi noted at 1750 and 78°F. 20.7 mi SE a 2 1/2 - 3' DOR.

Elaphe scalaris noted. 20.9 mi SE a DOR adult Malpison m. monspessulanus noted. 22.4 mi SE an AOR L. schreiberi seen at 1800 and 76°F. 24.8 mi SE a DOR L. schreiberi seen. 28.4 mi SE a large adult Malpison m. monspessulanus seen DOR.

Benalup de Sierrita, 3.7 mi NE at 1837 and 74°F an AOR Lacerta schreiberi observed.

Alcalá de los Gazules, 1.2 mi SE a DOR juvenile Elaphe scalaris noted at 71°F and 1931 hr. 4.0 mi SE one large adult M. m. monspessulanus DOR. 8.9 mi SE at 2015 and 67°F a 4' adult DOR M. m. monspessulanus.

28 MAY 70

noted.

Los Banios, 4.5 mi NW, 2105, 58°F on AOR Bufo
B. spinosus (18767) collected 1.3 mi NW, 2117, 62°F an adult
Rana a. perezi (18768) taken AOR.

Tarifa, 3.8 mi NE on N-340 one DOR juvenile
Elaphis scalaris (18771) collected. 10.0 mi NW and
 13.5 mi NW DORs Malpolon m. monspessulanus and
Matryx maura respectively. 16.1 mi NW (2230, 58°F) a
Pelobates cultripes adult (18769-18770) collected AOR. 29.2
 mi NW a DOR Malpolon m. monspessulanus observed.

Vejer de la Frontera, 3.4 mi NW a DOR M.
m. monspessulanus seen DOR.

Chiclana de la Frontera a large adult P. cultripes
 (18769-18770) taken AOR near center of town.

29 MAY 70

Naval Base - Puerta de Santa Maria - San Lucas de
 Barrameda - Bonanza - San Lucas de Barrameda - Chipiona - Rota.
 1100 - 1900, 79°F

Puerta de Santa Maria, 2.8 mi NW one Malpolon m.
monspessulanus noted DOR.

Bonanza, 4.1 mi N, 1227-1700, 86°F at forested
 collection area. Pinus pinaster and sandy soil covered w/
Pinus needle forms substrate.

1241 - 4 Acanthodactylus e. erythrinus seen in
 sand dune area

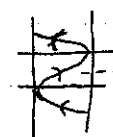
1245 - 2 A. e. erythrinus seen

1247 - 1 A. e. erythrinus shot in juniper.

1249 - 1 A. e. erythrinus juv. shot in Cistus
crispus and P. lentista.

1257 - 1 A. e. erythrinus sub adult seen

29 MAY 70

1300 - 1 A. e. erythrum seen in Halimium1303 - 2 A. e. erythrum seen in Halimium1306 - 2 A. e. erythrum seen in ES 141311 - 1 A. e. erythrum (18778-18790) shot (juv)1315 - 2 A. e. erythrum seen1321 - A. e. erythrum (18778-18790) adult shot.1323 - A. e. erythrum sub-adult seen.1328 - Psammochorus a. algeri (18774-18777)sub-adult noted climbing Pinus pinaster trunk in a spiral fashion as per:

side not visible

--- = side not visible
- = my side1336 - Psammochorus a. algeri (18774-18777) shot in Halimium (sub-adult).1337 - A. e. erythrum adult shot1343 - P. a. algeri shot from juniper1351 - A. e. erythrum juvenile shot while underHalimium halimifolium.1354 - A. e. erythrum adult shot1405 - P. a. algeri seen in shaded area in sandy substrate under Pinus pinaster1410 - A. e. erythrum seen.1417 - A. e. erythrum seen under Cistus crispus and Pistacia lentista (ANACARDACEAE)1424 - P. a. algeri seen but not taken.1427 - A. e. erythrum seen in Anacardaceae (juv + adult)1436 - A. e. erythrum seen in " "1446 - 2 sub-adult A. e. erythrum shot under Halimium halimifolium.

29 MAY 70
~~29 MAY 70~~

- 1452 - 1 A. e. erythrum adult seen in Halimium
 1500 - 2 P. a. algirum adults seen under bush
 1504 - A. e. erythrum seen (juvenile)
 1506 - A. e. erythrum adult shot under Halimium
 1508 - A. e. erythrum seen under P. lentiscus
 (Anacardiaceae)
 1517 - One P. a. algirum (♀) shot under juniper-like
 bush
 1535 - One A. e. erythrum shot
 1544 - One A. e. erythrum seen in juniper
 1546 - Subadult A. e. erythrum shot and
 one P. a. algirum seen in juniper.
 1549 - A. e. erythrum juvenile seen very active.
 1551 - A. e. erythrum sub-adult shot.
 1557 - A. e. erythrum noted
 1600 - 3 A. e. erythrum seen in sand dune
 area
 1605 - 1 A. e. erythrum seen in juniper
 1614 - P. a. algirum seen
 1617 - P. a. algirum shot
 1620 - A. e. erythrum shot
 1635 - A. e. erythrum and P. a. algirum seen
 1700 - One adult P. a. algirum seen sunning
 in "sunspot" in open sandy area.

Boranya, 5.4 mi N u M. m. monoposulana DOR and
 has been there at least since 1300. 6.7 mi N, 1807, 82°F
 an AOR Malpison m. monoposulana seen but not collected.

Chipiona, 1.8 mi NE one large M. m. monoposulana
 DOR on C-441.

30 MAY 70

Rota, 2300, One Malpison m. monspessulanus noted
DOR by W.R. Maxwell 1.5 mi N and E. of Rota on
perimeter road around Naval Base.

6 JUN 70

Puerto Real - Intersection w/ C-440 to Medina Sidonia
2130 - 2400

Several Pelobates cultus ^(18810[15]-18823), Hyla a. meridionalis ⁽¹⁸⁷⁹⁷⁻¹⁸⁸⁰⁰⁾, Pelodytes
punctatus ⁽¹⁸⁸⁰¹⁻¹⁸⁸⁰³⁾, Discoglossus p. pictus ⁽¹⁸⁸⁰⁴⁻¹⁸⁸⁰⁷⁾, one (1) Rana r. perezi ⁽¹⁸⁸⁰⁸⁻¹⁸⁸⁰⁹⁾, and
2 Pleurodeles waltl ⁽¹⁸⁸²⁴⁻¹⁸⁸³³⁾ collected.

7 JUN 70

Puerto Real - Medina Sidonia

0116 - 0400 hr, 64°F

Puerto Real, Pleurodeles waltl ⁽¹⁸⁸²⁴⁻¹⁸⁸³³⁾ collected AOR
3.6 mi ^{5.79 km W} E; 3.8 mi ^{12.8 km W} E, 0120, 62°F one P. cultus ^(18810[15]-18823)
collected AOR. 6.3 mi ^{8.9 km W} E, 0135, 61°F, one Pleurodeles
waltl ⁽¹⁸⁸²⁴⁻⁸³³⁾ taken A.O.R. 6.6 mi E. an Elaphis scalaris
was seen DOR and 12.8 ^{1.6 km W} mi E a Discoglossus p. pictus
seen AOR. Discoglossus p. pictus (AOR), 0245, 59°F
⁽¹⁸⁸⁰⁴⁻¹⁸⁸⁰⁷⁾ found 5.8 ^{1.5 km W} mi E.

Intersection of C-440 and Puerto Real road, Pelobates
cultus ^(18810[15]-18823) collected at 20.6 ^{17.9} mi ^{15.3 km W} SE, 12.8 ^{17.1} mi ^{15.3 km W} SE, and 25 ^{15.3 km W} mi
SE. Pleurodeles waltl ⁽¹⁸⁸²⁴⁻¹⁸⁸³³⁾ at 8 ^{14.3 km W} mi SE at 0315
and 60°F. 7.2 mi E. a DOR Malpison m. monspessulanus
seen. 4.8 ^{11.3 km W} mi SE one Pelobates cultus ^(18810[15]-18823) collected
0325 and 62°F.

Puerto Real, 3.4 ^{3.4 km W} mi E. another P. waltl ⁽¹⁸⁸²⁴⁻¹⁸⁸³³⁾
taken AOR at 0330.

Hyla a. meridionalis taken this evening one first hatchling
seen this year.

9 JUN 70

[MAXWELL] Chiclana de la Frontera, 14.1 mi. S. a DOR Malpison
m. monspessulanus observed

9 JUN 70

Puerto de Santa Maria - Jerez de la Frontera - Arcos de la Frontera - Algor - Tempul - San José del Valle - La Barca de la Florida - Jerez de la Frontera - Puerto de Santa Maria.

1930 - 2330, 68°F

Puerto de Santa Maria, 2.8 mi N. one Malpolon m. monspessulanus found DOR. 6.0 mi W. Jerez de la Frontera one Lacerta schreiberi found DOR.

Arcos de la Frontera, 9.1 mi SE a L. schreiberi seen DOR. Algor, .9 mi. WSW, 2107, 60°F a juvenile Discoglossus p. pictus (18834) collected. 2.5 mi WSW, 2118, 62°F one Chaphe scalaris (18840) collected AOR.

Tempul, 3.0 mi WNW, 2135, 59°F, one Bufo calamita (18836-18839) collected AOR.

La Barca de La Florida, 4.2 mi ESE, 2214, 58°F (18836-18839) one Bufo calamita collected AOR. 1.8 mi WNW a juvenile Pelobates cultripes (18835) collected AOR and at 5.2 mi WNW, 2238, 58°F another Bufo calamita (18836-18839) found AOR.

10 JUN 70

Rota - Chipiona Road

1800 - 2000

2 Malpolon m. monspessulanus found DOR on highway.

12 JUN 70

Rota - Chipiona - San Lucan de Barrameda - Bonanza and for El Algaida at 4.1 mi. N. of Bonanza.

1245 - 1930 hrs

for El Algaida, 1406 one Acanthodactylus e. erythrus seen active on road at 80°F.

1435 77°F A. e. erythrus seen on property

1439 " " " (1 adult, 1 sub adult seen)

1441 2 A. e. erythrus seen active in Halimium

halimifolium area

12 JUN 70

- 1449 one Acanthodactylus e. erythrum adult shot
- 1453 3 Malpison m. monspessulanum seen in Cistus crispus (2 adults, 1 sub adult)
- 1456 Psammochromis a. algerus in Halimium halimifolium
- 1504 P. a. algerus taken in Cistus crispus
- 1507 2 P. a. algerus seen
- 1510 1 A. e. erythrum seen
- 1513 A. e. erythrum shot in Cistus crispus
- 1518 P. a. shot in Pistacia lentiscus
- 1520 P. algerus shot in Cistus crispus
- 1526 P. a. algerus shot in Pistacia lentiscus
- 1530 P. a. algerus seen
- 1534 2 P. a. algerus seen in juniper
- 1539 1 A. e. erythrum shot under juniper
- 1543 P. a. algerus shot under juniper
- 1545 P. a. algerus seen under juniper along with one Acanthodactylus e. erythrum
- 1549 2 A. e. erythrum seen
- 1552 Psammochromis a. algerus shot in Halimium halimifolium - juniper area.
- 1554 A. e. erythrum seen under juniper
- 1558 2 A. e. erythrum shot while sunning near H. halimifolium
- 1604 A. e. erythrum shot on sand dune
- 1610 P. a. algerus seen in juniper
- 1613 P. a. algerus seen in Pistacia lentiscus
- 1616 A. e. erythrum and P. a. algerus seen in Cistus crispus and Halimium halimifolium
- 1622 A. e. erythrum seen

12 JUN 70

CMFS 18541-47:
 Q. & erythraea
 18548-552:
P. a. algeri

1623 P. a. algeri seen in Helinium halimifolium
 and Cistus crispus

1630 END SURVEY 79°F

1810 2 Acanthodactylus e. erythraea seen sunning
 on road shoulder (77°F)

San Lucar de Barameda, .3 mi. E. a DOR Malpala m. monspessulanus taken noted DOR.

13 JAN 70

Jerez de la Frontera - La Barca de la Florida - Arcos de la
 Frontera - San José del Valle - Tempul - Salis - Albrigue -
 Benacay - Grayalera - Zahara - Algodonales.

0530 - 1646

Naval Base, one DOR Malpala m. monspessulanus seen
 DOR at 0540.

La Barca de la Florida, 4.9 mi. E. on CA-502

0628 54°F

0641 Psammochromis a. algeri captured (18853-
 18854) in pile of discarded Myrtus communis.

0645 - P. a. algeri seen in Chamaecyparis humilis

0648 - P. a. algeri collected (18853-18854) in
 low brush from cleared area.

0654 - 4 Lacerta schreibleri (?) (18862) eggs
 picked up from soft, moist soil under Lavandula stoechas

0655 - Rabbit seen

0659 - P. a. algeri seen

0701 - Psammochromis a. algeri seen in area
 of Erica scoparia L. and ES 13.

0710 - P. a. algeri captured in low brush

0717 - P. a. algeri seen in Erica scoparia L.

0728 - 60°F

13 JUN 70

0742 = 60°F

0751 - P. a. alpinus seen in Quercus coccifera

0757 - P. a. alpinus seen in Q. 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.

LMFS
18863-18865 =
P. a. alpinus

0810 - 2 P. a. alpinus observed active on top of bushes and later on sand below.

0813 - P. a. alpinus seen in Q. coccifera

0817 - 2 P. a. alpinus seen in Q. coccifera and Myrtus communis (2 adults)

0821 - P. a. alpinus sunning in Q. 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 - P. a. alpinus seen in Myrtus communis and dew now starting to evaporate

0828 - P. a. alpinus seen in Pistacia lentiscus

0834 - A. e. erythraeus seen active in area of H. halimifolium, Q. coccifera, and Myrtus communis.

0842 - P. a. alpinus seen active in Q. coccifera.0846 - A. e. erythraeus seen in H. halimifolium0847 - A. e. erythraeus seen in Q. coccifera.

0849 - 65°F end

San José del Valle, 1.3 mi ESE on Malpaso m. monopetalus seen DOR.

Tempul, 1.7 mi E. a small Lacerta schreiberi seen AOR at 0941 and 71°F. 4.7 mi E. a DOR Bufo b. spinosus

13 JUN 70

noted. 5.9 mi E. @ 1004 and 77°F one Blaesoxiphus (CMFS 18859) found AOR. 6.1 mi E. @ 1007 and 72°F a Lacerta schreiberi (CMFS 18857) shot and 7.8 mi E. at 1017 and 67°F another seen.

Ubrique, 17.2 mi SW at 1031 and 67°F one L. schreiberi subadult seen active in rock pile. 16.8 mi SW from 1030-1049 at 76°F (air) 2 Psammophis a. alpinus (CMFS 18853-18854) shot, one Rana a. perezi (CMFS 18858) found in a cold, fast-running stream, and one Lacerta muralis seen. 16.7 mi SW at 1051 and 74°F one L. schreiberi seen active and at 1055 (76°F) a Coluber hippocrepis (18860) adult captured from stone wall. 16.0 mi. SW from 1100-1109 (79°F) one Natrix maura (18861) found under rock near vernal pond, 2 P. a. alpinus seen, and a scorpion found. 15.4 mi SW, 1122, 75°F one L. muralis seen and 15.1 mi SW at 1125 and 73°F a L. schreiberi noted.

Intersection to Ubrique - Cortes, 1.0 mi E. a Natrix maura noted DOR. [1.4 mi E = Mataga line]

Ubrique, 1.2 mi S. a Bufo bufo subsp seen DOR (probably bufo from size).

Benaecoy, 3.0 mi SW one DOR Elaphe scalaris seen. 3 mi S one 6' DOR Elaphe scalaris (±; decapitated) and 1.9 mi S. and E. another E. scalaris seen DOR and estimated length is 4'. 2.2 mi S. & E. a Molophilus m. monopressulatus seen DOR (adult). ~~1.7 mi~~

Grazalema, 1.7 mi E. a 4' Elaphe scalaris noted DOR. 3.1 mi W. and N. at 1510 and 75°F 2 Lacerta muralis (18855-18856) shot and a P. a. alpinus noted.

13 JUN 70

Zahara, 5.4 mi S., 1530-1542 at 65°F (2) Lacerta muralis seen. 3.9 mi S. one juvenile Elaphe scalaris (CFS 18882) found DOR.

Algodonales, 1.0 mi SE at 1620 and 76°F one Lacerta schreiberi seen AOR. 2.2 mi NW at 1646 and 78°F one Psammochromis a. algirus seen and 2-3 Rana r. perezi observed.

14 JUN 70

Algodonales - Olvera - Setenil - El Gastor - Algodonales - Villamartin - Bornos - Arcos de la Frontera.

1000-1800, 70°F, clear + sunny

Algodonales, 2.0 mi W and 3.8 mi N on road to Moron one P. a. algirus shot (18866-871) and one Lacerta schreiberi seen AOR at 1045. 4.4 mi E one Malpolon m. monspessulanus seen DOR. 4.5 mi E a Rana r. perezi heard calling from stream. 7.6 mi E. from 1200-1230 at 74°F 5 Psammochromis a. algirus (18866-18871) collected and one observed under slightly overcast skies.

Olvera, 5.1 mi SW at 1321 and 76°F one Lacerta schreiberi shot (18875). 6.9 mi SW the elevation is marked at 403 M. 7.4 mi SW (2) Malpolon m. monspessulanus DOR.

Setenil, 3.5 mi NW at 1412 and 76°F one DOR Malpolon m. monspessulanus and a Psammochromis a. algirus seen alive on bridge abutment. 2.9 mi NW 2 Rana r. perezi (18873-18874) and one Lacerta muralis (CFS 18872) captured at 1415-1430 and 82°F. Rana habitat was rapid moving fresh water stream.

Algodonales, 3.5 mi W. on N-342 one DOR Malpolon m. monspessulanus noted.

CÁDIZ STB 10/2014
SPAIN, MÁLAGA PROVINCE

62

14 JUN 70

El Dostor, 6.5 mi E. at 1509 and 76°F one Jacarta
schreibni seen. 5.4 mi E. one Malpelo m. monspesulanus
found DOR.

SPAIN, CÁDIZ PROVINCE

14 JUN 70

Villamartin, 1.2 mi SW a DOR Lacerta schreiberi noted. 2.8 mi SW on DOR Malpelon m. monspessulanus seen. 3.4 mi SW on AOR Lacerta schreiberi noted. Arcos de la Frontera, 4.0 mi NE a DOR Malpelon m. monspessulanus.

16 JUN 70

NAVBASE - Vejer de la Frontera - Cabo Trafalgar - Vejer - Barbate de Franco - Vejer - Chiclana de la Frontera.
2100 - 2400.

Vejer de la Frontera, 1.4 mi NW on N-340 one Elaphe scalaris DOR adult (4 1/2 - 5' TL) seen. 2.4 mi SW at 2211 and 61°F one AOR Pelodytes punctatus (18876-18877) collected. = P. CULTRIPIES

Cabo Trafalgar, 1.9 mi N. at 2226 and 64°F one large Bufo b. spinosus (18880-18881) collected and at 1.8 mi N. (2227 and 62°F) one Pelobates cultripes juvenile (18879) found AOR. 4.6 mi N. at 2249 at 62°F one P. punctatus (18876-18877) found AOR.

Barbate de Franco, 3.1 mi NW at 2340 and 58°F one juvenile Hyla a. meridionalis (18878) collected AOR.

17 JUN 70

Chiclana de la Frontera, 7.8 mi SE at 0007 and 65°F one Bufo b. spinosus collected (18880-18881) AOR.
0007 - 0008 hr.

18 JUN 70

Puerta de Santa Moria - Chiclana de la Frontera - Vejer de la Frontera - Torifa - Algeciras - Los Barrios - Alcalá de los Gazules - Puerta Real.

2000 - 2400 hr, 61°F.

Los Barrios, 5.1 mi NW at 2219 at 61°F one Hyla a. meridionalis seen AOR. 5.6 mi NW at 2220 (61°F) one Discoglossus p. pictus (18883) collected AOR. 6.6 mi NW, 2231,

18 JUN 70

60°F one Bufo b. spinosus (18885-18889) collected AOR.
 7.4 mi NW at 2235 and 60°F another Bufo b. spinosus
 (18885-18889) collected. 9.2 mi NW a Caprimulgid seen
 and its critical distance was $\pm$ 8' from my car.
 14.2 mi NW at 2305 and 55°F a Bufo b. spinosus collected
 AOR (18885-18889) with Hyla a. meridionalis heard calling
 in the distance.

Alcalá de los Gazules, 14.3 mi SE a DOR Lacerta
schreiberi noted. 9.0 mi SE at 2326 and 60°F one
Bufo b. spinosus collected (18885-18889) AOR/DOR. 6.9 mi
 SE another Caprimulgid noted, this specimen appeared to
 have a critical distance for flight-flight reaction of $\angle$ 3'
 4.5 mi. SE at 2342 and 57°F one Bufo b. spinosus
 (18885-18889) collected. 2.7 mi WNW one Lacerta
schreiberi seen DOR and a FULL MOON in evidence.
 5.6 mi WNW an abundance of Lepus sp. (9+) seen in
 past 2-3 miles and at 9.5 mi WNW the rabbits
 are still in evidence.

Puerta Real, 11.5 mi E. 3 Lepus noted.

19 JUN 70

Puerta Real

2400-0100

Puerta Real, 0.5 mi E at 0055 and 60°F one
Hyla a. meridionalis seen AOR (not collected)

Rota - Chipiona - San Lucas - El Algaída (Boranza, 4.1 mi
 N). 1330-1835. 70°F, clear and sunny

At El Algaída, a DOR Lacerta schreiberi noted on N side
 1425 at 76°F one Acontodactylus e. erythrinus

1426 77°F

1432 Psammochromis a. alpinus shot in C. crispus (♀)

19 JUN 70

- 1436 Psammochromis a. algirus seen in juniper
- 1438 Acanthodactylus e. erythrum seen in juniper
- 1446 " " shot in Halimium
halimifolium.
- 1450 Acanthodactylus e. erythrum in H. halimifolium
- 1451 A. e. erythrum in H. halimifolium
- 1456 A. e. erythrum shot in open sand, shade,
near Cistus crispus and a 2nd specimen observed.
- 1458 A. e. erythrum observed in Cistus crispus
- 1500 Psammochromis a. algirus observed under
Pinus pinea in low foliage.
- 1506 A. e. erythrum seen in Cistus crispus
- 1507 A. e. erythrum shot in C. crispus, H.
halimifolium area
- 1511 A. e. erythrum in C. crispus, H. halimifolium
and juniper area
- 1512 Lacerta schreiberi seen
- 1514 A. e. erythrum seen in Cistus crispus and juniper
- 1515 A. e. erythrum shot in juniper after being
frightened from H. halimifolium
- 1526 P. a. algirus shot under Pinus pinea in area
of Cistus crispus, Pistacia lentiscus (L.), and Halimium
halimifolium. ♂ with disjointed tail and has yellow fleck
around limbs, blue behind ear and above front legs.
- 1531 P. a. algirus in sand dunes under H. halimifolium
- 1543 A. e. erythrum shot in Cistus crispus
- 1547 A. e. erythrum shot in C. crispus and juniper.
- 1559 P. a. algirus seen in sand vic of H. halimifolium
- 1602 A. e. erythrum shot in H. halimifolium and C. crispus

19 JUN 70

1605 Acanthodactylus e. erythrum seen in H. halimifolium1609 A. e. erythrum shot in Cistus crispus1611 A. e. erythrum shot in open area w/ H.halimifolium1613 A. e. erythrum shot in open area w/ unidentified plants, open sand lot area, dunes evident, vegetation low, and Pinus pinea present.1615 A. e. erythrum seen in H. halimifolium area1620 A. e. erythrum shot in dune area1625 A. e. erythrum seen in juniper1628 A. e. erythrum seen active in sand dunes1632 A. e. erythrum seen in dunes1634 A. e. erythrum adult seen1640 A. e. erythrum shot in H. halimifolium1643 A. e. erythrum shot while foraging1648 P. a. algirus seen in P. lentiscus

1650 77°F END SURVEY

1705 Acanthodactylus e. erythrum seen on road.CMFS 18890-18891 - P. a. algirus // 18892-18905 = A. e. erythrumSan Lucar de Barrameda, 6.8 mi SE at 1750 one Malsodon m. monspessulanus seen AOR but not collected.

Puerta de Santa Maria, 1.8 mi ESE from 1809-1835 and nothing of interest seen. (First time nothing found).

10 JUN 70

Naval Base, Rota

One (1) Bufo calamita (CMFS 18906) collected by E. Rubinoski

11 JUN 70

Rota - Chipiona Road

Maxwell reports a Lacerta schubleri DOR on this road this afternoon. Mid-day temperature in low 80's.

24 JUN 70

Jerez de la Frontera - Arcos de la F.^{ta} - Borna - Villamartin -
 P^{to} Serrano - Algodonales - Zahara - Grogalema - Bernascan - El Bosque -
 Arcos de la Frontera - END.

1800 - 2400. 82°F - 72°F R.H. 46% @ Start

Arcos de la Frontera, 5.1 mi ENE on N-342 one DOR
Malpison m. monspessulanum noted.

Borna, 4.8 mi ENE another DOR M. m. monspessulanum

El Bosque, 6.8 mi SSE at 2216 (72°F) one centipede
 (ES 274) collected. 3.8 mi W. a DOR Rana s. perezi seen.

Arcos, .5 mi ESE a DOR Coluber hippocrepis
 (CMFS 18911) found fresh at 2325 and 74°F.

25 JUN 70

Jerez de la Frontera - El Portal - Puerto Real - Puerto de Santa Maria
 2000 - 2330, 72°F.

El Portal, .4 mi SE at 2117 and 71°F one Tarentula
mauritanica seen on a steel-concrete bridge. 1.8 mi SE
 at 2125 3 "little Owls" seen (72°F) A.O.R.

Jerez de la Frontera, 6.7 - 6.9 mi SE on C-440
 between 2135 and 2144 (67°F) three Rana s. perezi (18912-18914)
 collected A.O.R. 8.4 mi SE at 2250 and 65°F one Pelobates
cultreper found A.O.R. (18915)

^{observed}
~~collected~~ Puerto Real, 12.0 mi E. one large (3'-) Elaphe scalaris
 DOR but too dry and flattened to save. 11.2 mi E
 another Elaphe scalaris (3' - 4' long) seen DOR. 10.2 mi
 E. a Pelobates cultreper taken and 9.3 mi E at 2234 and
 74°F another P. cultreper taken A.O.R. (18916-18917). 6.5 mi E
 at 72°F and 2245 a live snake noted (probably E. scalaris)
 but not positively identified. 5.2 mi E. one DOR Malpison
m. monspessulanum observed. 5.1 mi E. a juvenile Malpison
 seen DOR and at 4.3 mi E. another Malpison seen DOR.

27 JUN 70

Puerta de Santa Maria - Chiclana de La Frontera - Vejer de la Frontera - Puerta Paloma (located on shoreline close to Tarifa) - Tarifa - P^{to} del Cabrito (4.6 mi NE of Tarifa) - Algeciras - Los Baños - Casas del Costano - Alcalá de los Gazules - Puerto Real.

1211-2020

75°F, overcast and partly sunny.

Vejer de la Frontera, 7.5 mi ESE a Caluber hippocapi found DOR on N-340.

PUNTA PALOMA

1410-1540

1420 - One Acanthodactylus e. erythrum shot under Pinus pinus in open sand area.

1422 - One Psammotrochus a. algerius shot area of Pinus pinus and Lygos monosperma.

1427 - 1 A. e. erythrum seen and shot in P. pinus area.

1431 - A. e. erythrum shot in sand under P. pinus.

1434 - A. e. erythrum shot in pine needles under P. pinus.

1438 - A. e. erythrum shot in P. pinus and Lygos monosperma.

1440 - A. e. erythrum shot under P. pinus in sand (hard-packed sand).

1445 - A. e. erythrum shot under L. monosperma and another specimen seen.

1448 - 2 A. e. erythrum seen, one in P. pinus and 1 in L. monosperma.

1449 - A Rabbit (Lepus?) seen

1452 - A. e. erythrum shot in sand near Senecio

27 JUN 70

Jacobaea L.

1459-1500 - 2 A. e. erythrum shot, 1 in Senecio jacobaea L. and one in P. pinea and Lygos monosperma area.

1502 - A. e. erythrum shot under L. monosperma

1509 - A. e. erythrum shot under P. pinea

1518 - A. e. erythrum shot in P. pinea and Lygos monosperma.

1521 - A. e. erythrum seen but not collected.

1523 - A. e. erythrum shot in Pinus pinea

1526 - A. e. erythrum shot in P. pinea and another specimen seen.

1533 - A. e. erythrum seen in P. pinea but not collected.

1540 END at 81°F

(P. a. algerum = CMFS 18933
A. e. erythrum = CMFS 18918-18932)

Puerto del Calito, 2.3 mi NNW on Bajo la espina seen DOR. 4.7 mi NNW at 1633 and 82°F in the Sierra de Luna area with Quercus suber and Chamaecyparis humilis, 2 Psammodesmus a. algerum and 1 Tortola mauritanica observed active. The P. a. algerum were observed active in heavy shrubbery in area of Q. suber but were too fast to be taken. The T. mauritanica (18934) was taken at 1653 from the sun-soaked side of a piece of granite.

Algeciras, 5.3 mi SW on Malpalon m. monosperma noted DOR

Cosos del Costazo, 7.6 mi S. on AOR Lacerta lepida subadult noted at 1840 and 80°F.

Alcala de los Gazules, 3.7 mi SE at 1846 and 78°F

7 JUN 70

another AOR Lacerta lepida noted. 1.7 mi WNW a DOR
L. lepida found and at 11.4 mi W. an Eleph. scalaris found.

Puerto Real, 11.9 mi ~~W~~ E. at 1934 and 78°F
a fresh DOR Lacerta lepida noted.

28 JUN 70

La Algaída (vic San Lucar + Bonanza)

0530 (60°F)

0634 and 57°F - 134/ and 82°F (CMFS 18936 - 18952)

0719 a P. a. algium seen sunning

0734 = 64°F

0736 a P. a. algium shot in Myrtus communis

0754 a P. a. algium seen in juniper

0807 2 P. a. algium seen in depression in sand
and later in juniper.

0812 Acanthodactylus e. erythrum shot

0813 71°F

0823 A. e. erythrum seen

0827 P. a. algium (2) seen and captured in
P. pinea and juniper.

0831 A. e. erythrum seen sunning in open sand
vicinity of unidentified bushes.

0833 A. e. erythrum shot while sunning under
unidentified bush.

0835 75°F

0837 A. e. erythrum shot while sunning

0841 A. e. shot under juniper while sunning

0844 A. e. erythrum shot while sunning in

open sand. 2 Psammodromus a. algium seen active in
juncus albus

0848 2 P. a. algium seen

28 JUN 70

0850 Acanthodactylus e. erythrum shot while sunning

0855 A. e. erythrum shot while sunning in Halimium halimifolium

0856 A. e. erythrum seen in juniper

0858 A. e. erythrum seen sunning.

0901 A. e. erythrum seen active in H. halimifolium area w/ unidentified plant

0905 A. e. erythrum seen in unidentified plant

0912 Soil temperature 70°F at 1/2" below ground in shady area.

0914 A. e. erythrum shot under juniper.

0918 A. e. erythrum seen moving about in Halimium halimifolium and unidentified plants.

0921 A. e. erythrum in juniper and on sand in shade

0924 A. e. erythrum active in H. halimifolium and juniper area.

0927 A. e. erythrum shot in H. halimifolium and under outer limits of juniper.

0930 Sub-adult :: juvenile A. e. erythrum seen active in juniper

0935 Psammodesmus a. algium seen in shady area of juniper.

0936 78°F

0940 P. a. algium seen in Cistus crispus

0942 P. a. algium seen sunning in Pistacia lentiscus

0946 P. a. algium seen in Myrtus communis

28 JUN 70

and Cistun crispus. One A. e. erythrum shot in Cistun crispus, H. halimifolium, and P. pinea area.

0951 = 73°F

0954 = 74°F

0955 = 1 P. a. alpinum seen AOR

1012 - 78°F and 1 subadult Malpala m. monspesulanum (18935) collected in C. crispus area.

1016 - A. e. erythrum crossed highway.

NOTE: For a while (1015-1120) I cruised the dirt road along the Guadalquivir River Northward. 16 miles N of La Alguinda (20 mi N. Boronja) I found 1 Matrix maura and 40 Mauremys e. leprosa lying dead on the road. The Mauremys ranged in size from juveniles to large adults and were so rotted they could not be salvaged. The Matrix was reduced to a skeleton or pretty close to a skeleton. 17 miles N. of La Alguinda 90 more Mauremys and 2 Matrix were found in the same condition. 17.2 miles N. 30 Mauremys e. leprosa were found dead. The numbers are actual counts, not guesses (all round numbers?)!

1128 - Malpala m. monspesulanum subadult seen AOR along w/ one P. a. alpinum in Halimium halimifolium.

1129 - 2 Acanthodactylus e. erythrum seen AOR.

1232 = 79°F.

1242 - 1 A. e. erythrum seen under juniper.

1244 - A. e. erythrum shot under H. halimifolium and C. crispus.

28 Jun 70

1249 - P. a. algeri shot in H. halimifolium, Pinus pinus, and Cistus crispus.

1251 - A. e. erythrum shot under C. crispus

1255 - P. a. algeri seen in Myrtus communis

1257 - A. e. erythrum seen in C. crispus area.

1259 - A. e. erythrum (2) seen in H. halimifolium area.

1301 - P. a. algeri seen in Juniper

1312 - A. e. erythrum in H. halimifolium and C. crispus.

1315 - A. e. erythrum in C. crispus +

1319 - P. a. algeri seen in Juniper - P. pinus area.

1325 - A. e. erythrum seen active.

1326 - A. e. erythrum seen in C. crispus

1330 - A. e. erythrum shot in H. halimifolium area

1338 - 82°F

1341 - A. e. erythrum shot in H. halimifolium

Jul 70

Naval Base at Rota

2200 - 2300 70°F (air)

A series of Rana r. perezi (18953-18964) and 3 Mauromys e. leprosa (18965-18967) taken from pond on Base. Several other Rana seen along with another Mauromys.

3 JUL 70

Jerez de la Frontera, La Barca de la Frontera - Galis - Jimena de la Frontera - Castellon - Los Barrion - Cosar del Costano - Alcala de los Gazules - Puerto Real.

0845 - 1903, Clear & Overcast, 72°F.

La Barca de La Florida, 1.8 mi W. one Lacerta laxida subadult seen AOR at 0925 and 78°F. 11.7 mi E. at 1004

3 JUL 70

and 82°F one AOR Lacerta lepida seen. 27.8 mi E
at 89°F and 1055 one P. a. algirum seen AOR.

Galis at 28.3 mi E. La Barca de la Florida
at intersection of road from Ubrique - Jimena de la Frontera.

PROV. DE MÁLAGA

La Barca de la Florida, 29.1 mi E. at 1114
and 90°F one Lacerta muralis (18972) collected in
bridge abutment. 35.5 mi. E. at 1200-1226, 86°F
(AIR) 88°F - 92°F (water), a series of juveniles Rana
v. perezi and tadpoles (18973) taken.

? PROV. DE CÁDIZ

Jimena de la Frontera, 5.4 mi NW. at 1338 (106°F - 107°F) a Psammmodromus a. algirum (18969) shot. 5.1 mi
NW a Lacerta lepida shot at 1344 and 107°F (18970).
2.9 mi NW at 1408 at 104°F a L. muralis (18971) taken
off stone wall w/ a rubber band.

Los Barrios, 6.1 mi NW a Coluber hippocrepis
found DOR. 7.6 mi NW at 1650 and 96°F a P. a.
algirum seen AOR.

Alcalá de los Gazules, 12.4 mi W on Elaphis scalaris
seen DOR. 14.9 mi W. at 1820 and 88°F a Lacerta
lepida seen AOR.

Puerto Real, 6.4 mi E. on Elaphis scalaris seen
DOR. 6.3 mi E a Malpison m. monspessulanum seen DOR.
1.3 mi E a DOR Lacerta lepida at 1825 (82°F). 2.9 mi NW

3 JUL 70

a DOR Malpala m. monspessulana at 1903.

7 JUL 70

Rota, Naval Base

2340-2400, 70°F.

One Maurus c. leprosa (18944) taken from pond while it was foraging. Nothing else seen and 2-3 Rana heard calling.

16 JUL 70

Rota - Chipiona - San Lucas - Trebujena - Jerez de la Frontera

2030 - 2307

Trebujena, 2.4 mi. SW one large adult Malpala monspessulana collected (CMFS 18985) @ 2152 and 78°F. A scorpion (ES 277) was also collected 5.1 mi SSE of Trebujena. The evening, for the most part, is warm, calm, and dry.

18 JUL 70

Jerez de la Frontera - Jédula - Arcos de la Frontera - Arcos de la Frontera - El Bosque - Benamahoma - Zahara - Malaga Prov - Ronda - San Pedro de Alcantara - Estepona - Cadiz Prov - Sotogrande - La Linea - Algeciras - Tarifa - Vejer de la Frontera - Chiclana de la Frontera.

Benamahoma, one Elaphe scalaris seen on rock wall on E. edge of town and .9 mi S. (2) Lacerta muralis were observed on a stone bridge at 1042 @ approx. 80°F. 1.0 mi S. one Lacerta lepida (CMFS 18987) collected at 1045 and 82°F. 1.6 mi. S+E between 1100 and 1130 with an air temperature of 101°F a Natrix maura (18988) collected, 2 Lacerta lepida seen, and one Rana c. perezi seen in area of fresh-circulated water pond. 5.5 mi E. at 1251 and 88°F a Lacerta muralis (18986) collected and one specimen observed.

Vejer de la Frontera, 14.2 mi SE a Coluber hippocrepis was noted DOR and found unsuitable for preservation.

19 JUL 70

Rota - San Lucas - La Alguidea (4.9 mi. N. Bonanza)

0711 - 1415

61°F at 0711

0755 - Psammodromus a. algirus seen active in
juniper0815 - P. a. algirus shot in open area of Cistus crispus0819 - P. a. algirus shot in sand under Pistacia
lentiscus

0821 = 75°F

0827 - P. a. algirus seen in P. lentiscus0831 - P. a. algirus seen in " "0833 - Lacerta lepida seen in Halimium halimifolium0851 - Acanthodactylus e. erythrus shot under
unidentified bush0855 - A. e. erythrus seen in juniper0857 - A. e. erythrus shot under juniper area.0859 - A. e. erythrus seen under juniper0905 - 2 A. e. erythrus seen in sand.0910 - 1 A. e. erythrus shot in unidentified bush0916 - P. a. algirus shot in open sand in vic.
of Halimium halimifolium.0919 - A. e. seen in juniper0922 - 3 A. e. erythrus seen in open sand
area and 1 shot.0924 - 2 A. e. erythrus seen in open sand0931 - A. e. erythrus shot in juniper.0936 - A. e. erythrus shot under juniper
and another seen.0939 - A. e. erythrus shot in sand vic. juniper

19 JUL 70

- 0943 - A. e. erythrum shot under unidentified bush
0951 - A. e. erythrum shot in Halimium halimifolium
0952 - A. e. erythrum seen in juniper
0954 - A. e. erythrum seen in juniper
0955 - A. e. erythrum shot in juniper
0958 - 2 A. e. erythrum seen in juniper
0959 - 2 A. e. erythrum seen in juniper
1006 - 1 P. a. algium and 1 A. e. erythrum
seen in juniper
1010 - A. e. erythrum shot in open sand.
1012 - A. e. erythrum shot in open shade
vic. Halimium halimifolium under Pinus pinea
1017 - A. e. erythrum seen in H. halimifolium
and subsequently ran to juniper - Cistus crispus.
1030 - A. e. erythrum seen in juniper / Cistus
crispus area
1034 - P. a. algium seen in Pistacia lentiscus
1049 - A. e. erythrum shot in H. halimifolium
1110 = 85°F [1100-1150 lunch]
1155 - P. a. algium shot in Cistus crispus.
1155 - 87°F
1202 - A. e. erythrum seen in Myrtus communis
1206 - A. e. erythrum shot in open sand.
1209 - P. a. algium seen in Cistus crispus
1211 - A. e. erythrum seen area of M. communis
and Pistacia lentiscus.
1217 - A. e. erythrum seen in H. halimifolium area
1221 - A. e. erythrum shot in M. communis.
1225 - A. e. erythrum seen in H. halimifolium

19 JUL 70

- 1230 - P. a. algium seen in juniper
 1239 - A. e. erythrum seen in open sand
 1240 - A. e. erythrum juvenile seen in open sand
 1243 - A. e. erythrum shot while in open sand
 1256 - A. e. erythrum shot in area of H. halimifolium / Cistus crispus in shade of P. pinea
 1259 - A. e. erythrum shot under Cistus crispus in juniper area
 1304 - A. e. erythrum shot in Cistus crispus
 1307 - A. e. erythrum seen in open shade of pine (P. pinea) needles
 1310 - A. e. erythrum shot in C. crispus, Pistacia lentiscus area
 1315 - A. e. erythrum shot in Pistacia lentiscus area [CMFS 18990-19014]

1330 - END ; 1345 = 85°F

21 JUL 70

Rota - Chipiona - San Lucar - La Alguida - P^{to} Sta Maria - P^{to} Real - Rota.

1745 - 2320.

La Alguida (4.9 mi. N. Bonanza) 1850 78°F one Psammochromis a. algium observed.

1855 - Begin

- 1859 - P. a. algium shot under Pinus pinea
 1903 - P. a. algium seen in Pistacia lentiscus
 1906 - P. a. algium seen in Cistus crispus
 1925 - A. e. erythrum shot in H. halimifolium
 1959 - END (2010 = 72°F)

[CMFS 19015-19016]

Puerto Real, 6.2 mi E. @ 2200 and 66°F one Styela a.

21 JUL 70

meridionalis (19017). 6.5 mi E. one Coluber hippocrepis seen DOR. 7.3 mi E. at 2219 and 68°F one Rana perezii (CMFS 19018) collected.

24 JUL 70

Rota - Chipiona - San Juan - Pto. 5^{ta} Maria - P^{to} Real - Chiclana de la Frontera - Vejer de la Frontera - Tarifa - Algeciras - Los Barrios.

Unidentified

Plant =

Corema
album (L.)

1230 - 2400

Bonanza, 4.9 mi. N. at La Alguada, 1338 and 91°F.

1346 - Acanthodactylus e. erythrum shot in H. halimifolium and Cistus crispus

4

1350 - A. e. erythrum shot in H. halimifolium, Cistus crispus area in shade.

5

1355 - A. e. erythrum seen in juniper.

2 1357 - Psammochromis a. algerius shot in Cistus crispus and Halimium halimifolium area.

28 1425 - A. e. erythrum seen in unidentified plant. [= Corema album (L.)]

2 1427 - A. e. erythrum shot in juniper.

27
16
08

14 1443 - A. e. erythrum seen in H. halimifolium

2 1445 - 3 A. e. erythrum seen in area of Chamaerops, C. crispus, H. halimifolium, and juniper.

1 1446 - A. e. erythrum shot in Pistacia lentiscus

10 1456 - A. e. erythrum shot in road vic. P. lentiscus

3 1459 - A. e. erythrum shot under juniper like plant. (Juniperus phoenicea L.)

1508 - 1544 (Break for dinner)

1514 = 92°F

1536 - one fly (ES 278) captured + [ES 279]

24 JUL 70

- 16 1554 - P. a. algerum seen in juniper like bush.
 7 1601 - A. e. erythrum shot in juniper like area
 3 1604 - A. e. erythrum seen in juniper
 4 1608 - P. a. algerum seen in C. crispum / H. halimifolium
 6 1614 - 2 A. e. erythrum seen in juniper
 3 1617 - A. e. erythrum shot in Pistacia lentiscum
 4 1621 - A. e. erythrum seen active around log
 in sun; later escaped to juniper area.
 20 1641 - 2 A. e. erythrum seen in juniper.
 11 1652 - A. e. erythrum shot in Cistus crispum
 and Halimium halimifolium.
 7 1659 - A. e. erythrum seen under young P. pinen
 9 1708 = 89°F
 20 1728 - A. e. erythrum seen in H. halimifolium
 12 1740 - A. e. erythrum shot in juniper area, 1
 other seen.
 4 1744 - A. e. erythrum observed going into juniper
 4 1748 - A. e. erythrum shot under juniper
 7 1755 - A. e. erythrum juvenile shot
 10 1805 - A. e. erythrum shot in open sand and
 ether seen in juniper.
 5 1810 - A. e. erythrum shot in H. halimifolium,
Cistus crispum and juniper area.
 4 1814 - A. e. erythrum seen in unidentified plant area
 2 1816 - A. e. erythrum shot under juniper
 2 1818 - A. e. erythrum shot while sunning in sand

5-7
 (head up w/ chin angled to sun; right side
 of body to sun)

24 JUL 70

1821 - A. e. erythrurus (2) seen in area of Pinus
pinea and Juniper w/ unidentified plant.

1825 - A. e. erythrurus seen sunning as illustrated
earlier w/ chin // to sun's rays

1826 - A. e. erythrurus seen in unidentified bush.

1832 - A. e. erythrurus seen in unidentified plant

→ 1835 - A. e. erythrurus newborn seen.

1839 - A. e. erythrurus shot in unidentified
plant; P. a. algirus seen in Juniper.

1842 - A. e. erythrurus shot while sunning.

1844 - A. e. erythrurus seen in Juniper.

1853 - A. e. erythrurus seen in Juniper after
being in sunny area.

1855-1857 - P. a. algirus observed in Juniper.

1911 = 81°F END

One A. e. erythrurus was noted as being in ecdysis.

25 JUL 70

Los Banios - Benalup de Sidonia - Algeciras - Torfa - Vejer de la
Frontera - Chiclana de la Frontera - Puerto Real.

0845 - 1800

Los Banios, 11.7 mi NW on C-440 at 0907 (80°F) one
Lacerta lepida seen A.O.R.

Intersection of C-440 and unmarked dirt road to
Benalup de Sidonia (via Cueva de las figuras del Tojo)
.4 mi. W. at 0925 (80°F) one Matrix maura (19045) shot
in a small pond beneath a bridge where Rana v. perezi
were also observed. A Rana esculenta may have been present.
.9 mi. W. at 0956 and 82°F a Tarentola mauritanica
adult observed on a stone culvert. 3.0 mi W. at
1025 and 85°F in an area which is primarily low montane

25 JUL 70

with Pistacia lentiscus the prevalent small plant and Quercus suber the dominant tree, several annual grasses were providing land cover. 2 Rana r. perezi (CMFS 19038-19039) and 1 Mauremys c. leprosa (CMFS 19040) were collected. 3.8 mi. W. at 1055 and 85°F a Psammochromis a. algium was shot (19042) and 8 Mauremys c. leprosa, several Rana r. perezi, and one Tarentola mauritanica were also noted. 7.6 mi. W. at 1130 and 98°F another P. a. algium (19043) shot under well of aptone bridge. 8.4 mi. W. a Tarentola mauritanica (CMFS 19044) was shot from a stone retaining wall at 1130 and 90°F. 8.5 mi. W. at 1144 and 98°F one Lacerta lepida seen in a drainage hole of a retaining wall. 3.9 mi. W. at 1310 and 98°F a large Mauremys c. leprosa (19041) captured in a shallow clear pond where Rana r. perezi were also much in evidence.

36.08646

N 5, 53391

Río Guadalquivir

MESI

L CA-2215

MERIDION 44.15

13-1-2018

848

Tarifa, 4.6 mi. NE and 4.3 mi. NW between 1530 and 1600 (100°F [air], 70°F [water]) a series of HYLA perreana (48) [19046] tadpoles collected in a small, rapidly flowing, pool fed from a waterfall. Tadpoles were clinging to algae attached to rocks which formed basin for pool.

Vejer de la Frontera, 7.1 mi. SE a Malpolon m. monopsulonus was noted DOR.

26 JUL 70

Puerto de Santa Maria - Puerto Real - Chiclana de la F^{ta} - Vejer de la F^{ta} - Cortijada de Navero - Medina Sidonia - P^{to} Real 0817 - 1230.

Cortijada de Navero, 4.3 mi. N. one Malpolon m. monopsulonus seen DOR.

Medina Sidonia, 3.0 mi. WNW on C-440 at 1134 and

16 JUL 70

86°F one young Sacerta lepida seen AOR.

Puerto Real, 9.8 mi. E. a subadult Malpison m. monspessulanus seen OOR. 7.7 mi E. a juvenile Matrix maura found freshly OOR (88°F).

AUG 70

Rota - Puerto de Santa Maria - Puerto Real - Jerez de la Frontera - Rota (Naval Base)

1825-~~1943~~ 2239

Puerto de Santa Maria, 1825-1943, at 1848 and 83°F one small spider (ES 281) was collected.

Jerez de la Frontera, 11.1 mi. E. on C-440 a Coluber hippocrepis was ^{not} collected but was seen DOR. 5.8 mi. E. at 2047 and 72°F a Malpison m. monspessulanus found DOR on C-440. The specimen was about 3' in length and was lying next to a DOR 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 Malpison body was severely damaged and expulsion of stomach contents is not completely out of the question.

Rota, Naval Base, Vicinity of Stables, 2150-2239 at an air temperature of 72°F - 67°F. Several Rana r. perezi were heard calling and the ♂♂ have fully developed vocal sacs. 2 Maremys c. leprosa were seen but only one was collected (19058). A series of Rana r. perezi was taken (19044-19057). It is noted that Juncus albus is the predominant plant in the area of three small ponds. Two of these ponds are completely open with Juncus protection at only one end.

5 AUG 70

Rota - Chipiona - San Lucar - Bonanza (La Alguinda)

1345 - 1917

Bonanza, 4.9 mi N at La Alguinda.

1445 = 94°F

1557 - Acanthodactylus e. erythrum adult shot
area of H. halimifolium, Cistus crispus, juniper,
Pinus pinea, and P. lentiscus.

1606 - 92°F

1645 - Psammochromis a. algerus seen in unidentified
plant with large white berries (ES 282)1649 - A. e. erythrum shot in H. halimifolium1712 - A. e. erythrum shot in C. crispus

1725 - 90°F

1744 - A. e. erythrum subadult observed active
in ES 282.1759 - A. e. erythrum seen under juniper in area
of H. halimifolium1805 - A. e. erythrum shot in ES 2821809 - Juvenile A. e. erythrum shot while active
in sand.1814 - Juvenile A. e. erythrum shot while active
around ES 2821817 - Juvenile A. e. erythrum observed in juniper1821 - A. e. erythrum adult collected in sand
hole vic ES 2821823 - A. e. erythrum juvenile seen in vic.
of ES 2821833 - A. e. erythrum adult shot while travelling
thru open sand

ES 282 =

ovens
album (4)ES 283 =
Juniperus
phoenicea L.CORENA
ALBUM

8 AUG 70

1835 - A. e. erythrum young adult shot under
ES 282

1838 - A. e. erythrum juvenile seen under ES 282

1841 - A. e. erythrum adult seen in ES 282

1844 - A. e. erythrum juvenile shot in juniper

1850 - A. e. erythrum juvenile shot in Juniperus albus

1852 - A. e. erythrum adult seen in ES 282

1853 - A. e. erythrum young adult shot vic ES 282

1904 - A. e. erythrum subadult shot under juniper/
Cistus crispus.

1917 - 2 Psammochromus a. algirus seen active

1918 - END at 83°F

A. e. erythrum = CMFS 19059-19070

9 AUG 70

Boranga, 4.9 mi N. (In Alquida)

0700 - 1651

0700 = 62°F 16.7°C

0747 - Psammochromus a. algirus young adult shot
in Halimium halimifolium

0755 = 67°F 19.44°C

0802 - 2 P. a. algirus seen in Pistacia lentiscus

0809 - P. a. algirus shot under H. halimifolium

0830 - P. a. algirus shot in juniper

0836 - P. a. algirus seen in ES 282

0843 - Acanthosactylum e. erythrum juvenile shot
in ES 282

0845 - A. e. erythrum juvenile observed in ES 282

0849 - P. a. algirus observed in juniper

0859 - A. e. erythrum shot in vic. of C. crispus,
P. lentiscus, and juniper.

9 AUG 70

- 0908 - A. e. erythrum observed and one shot in vic. of H. halimifolium
- 0910 - A. e. erythrum adult observed in H. halimifolium.
- 0912 - A. e. erythrum juvenile shot in open area.
- 0922 = 74°F
- 0925 - P. a. algium adult shot in H. halimifolium and Cistis crispus area
- 0928 - P. a. algium shot in Cistis crispus
- 0941 - A. e. erythrum subadult or young adult shot in H. halimifolium.
- 0947 - A. e. erythrum adult seen in ES 282
- 0951 - A. e. erythrum young adult seen in ES 282
- 0954 - A. e. erythrum young seen in ES 282
- 0957 - A. e. erythrum shot while sunning under ES 282
- 0959 - P. a. algium shot in ES 282
- 1001 - A. e. erythrum shot while sunning in vic. of ES 282
- 1004 - A. e. erythrum juvenile seen in area of ES 282
- 1005 - Young A. e. erythrum seen in area of ES 282
- 1009 - A. e. erythrum seen area of ES 282
- 1014 - A. e. erythrum seen under ES 282
- 1015 - Juvenile A. e. erythrum seen in open sand
- 1018 - A. e. erythrum young adult shot while sunning in H. halimifolium area

9 AUG 70

- 1021 - A. e. erythrum seen in juniper
- 1023 - A. e. erythrum juvenile in ES 282
- 1026 - A. e. erythrum subadult seen in juniper
- 1031 - A. e. erythrum juvenile shot while active between plants of ES 282
- 1033 - A. e. erythrum juvenile seen in ES 282
- 1039 - A. e. erythrum subadult seen in ES 282
- 1040 - juvenile A. e. erythrum in ES 282
- 1044 - adult A. e. erythrum shot in juniper
- 1052 - A. e. erythrum shot in Cistus crispus area w/ H. halimifolium
- 1055 - A. e. erythrum seen under P. lentiscus
- 1056 - A. e. erythrum seen under P. lentiscus
- 1058 - A. e. erythrum shot in sand vic. P. lentiscus
- 1101 - A. e. erythrum adult observed
- 1107 - 81°F
- 1115 - A. e. erythrum seen in open area.
- 1120 - A. e. erythrum seen in H. halimifolium
- 1129 - A. e. erythrum seen in juniper area
- 1132 - A. e. erythrum seen in shaded area vic. P. lentiscus
- 1137 - A. e. erythrum seen in Cistus crispus area
- 1140 - A. e. erythrum adult seen in lowland - dried-up marsh area
- 1143 - A. e. erythrum shot in marshy area while active on sand-clay path.
- 1146 - A. e. erythrum shot in H. halimifolium area

9 AUG 70

1148 - A. e. erythrum seen in H. halimifolium1152 - A. e. erythrum seen in "1159 - A. e. erythrum seen active in Cistus crispus
and Juniper.

1200 = 84°F

1220 - A. e. erythrum shot in H. halimifolium and
ES 282 area1227 - A. e. erythrum seen in Juniper1230 - A. e. erythrum seen in sand area around
Juniper1233 - A. e. erythrum shot under Juniper after
retreating from area of ES 282 and seems
to stay under bushes at this time.1244 - A. e. erythrum in H. halimifolium1245 - A. e. erythrum in shady pine (P. pinna)
needle area

1253 = 86°F

1259 - A. e. erythrum shot in H. halimifolium
and Cistus crispus area.1304 - A. e. erythrum seen in area of Juniper1310 - A. e. erythrum seen under ES 282.1315 - A. e. erythrum seen in ES 282

1338 = 86°F

1350 - P. a. alpinum seen in debris under Pinus
pinna vic. of Cistus crispus and Halimium
halimifolium1357 - P. a. alpinum seen under Pinus pinna
in ES 282 w/ P. lentissimus and Juniper.1419 - A. e. erythrum seen under Juniper

9 AUG 70

1430 - A. e. erythrum seen in P. lentiscus

1500 - END :: 1434 = 91°F

Psammochromis a. algium = CMFS 19089-19094Acanthodactylus e. erythrum = CMFS 19071-19088

4 AUG 70

Puerto de Santa Maria - Puerto Real - Chiclana - Vejer - Tarifa -
Algeciras - Los Barrios - Road to Facinas.

1530 - 1835

Nothing of interest noted.

5 AUG 70

Facinas - Tarifa - Los Barrios - Algeciras.

0900 - 1807

Facinas, 8.9 mi N.E. and : 3 mi SE at 0922
and 80°F an adult Tarentola mauritanica seen on marble
slab. 1.6 mi SE at 0944 and 78°F a Psammochromis
a. algium seen sunning near large boulder (adult).3.2 mi SE at 1015 an adult Tarentola mauritanica
(CMFS 19104-19125) shot in concrete abutment. 2.7 mi
SE two T. 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 at 1112 and 76°F a Psammochromis
a. algium was shot (19101-19103) while sunning atop culvert
head slab. at 1126 and 80°F in the area a
T. mauritanica was shot on culvert in shady area. The
ground here is covered with Pteridium, P. lentiscus,
and what appear to be blackberry (or raspberry) bushes.2.3 mi SE at 1130 and 77°F one T. mauritanica shot
under bridge in heavy Quercus suber and raspberry bush area.

15 AUG 70

2.0 mi SE at 1143 and 80°F a Lacerta muralis juvenile was shot but not collected. 1.8 mi SE at 1150 and 85°F a Psammodesmus a. alpinus (19101-19103) shot from a stone wall. 0.8 mi SE at 1212 and 90°F a Lacerta muralis was shot and collected ^(19098 ♀) in the rocky substrate of a river bed in area of Quercus suber. At 1225 and 94°F a T. mauritanica was seen on the side of a culvert but not collected. .5 mi SE at 1304 and 95°F a T. mauritanica seen alive on a culvert (shady side). .1 mi SE at 1356 and 95°F a T. mauritanica shot on bridge abutment while in shade.

Facinas, 8.8 mi NE at 1405 and 97°F two T. mauritanica juveniles caught in culvert in shady area. 8.6 mi NE at 1413 and 84°F one adult T. mauritanica adult shot and no others seen. 7.4 mi NE at 1417 and 90°F one T. mauritanica shot while in shade and at 1431 and 95°F a single T. mauritanica shot while on bridge abutment alone. 7.3 mi. NE at 1445 and 94°F two T. mauritanica were shot and one Mauremys c. leprosa was seen. The Mauremys was living in a small ($\pm$ 6' x 4' x 3' deep) pond of fresh water with constant replenishment. 7.1 mi NE at 1450 and 93°F two adult T. mauritanica seen on a bridge abutment, one shot. 7.0 mi NE. at 1505 an adult T. mauritanica shot and a sub-adult seen. at 1509 and 94°F a T. mauritanica shot from top of bridge. 6.9 mi NE at 1514 and 88°F a T. mauritanica shot on culvert and at 1515 and 92°F a P. a. alpinus (19101-19103) shot along wall in shade. 6.7 mi NE at 1530 and 94°F an adult T. mauritanica

15 AUG 70

was shot, 2 juveniles were noted and a large snake was heard but not seen. 6.6 mi NE at 1536 and 95°F a T. mauritanica shot off culvert while 2 others, including one juvenile, were observed. 6.4 mi NE at 1539 and 91°F a T. mauritanica was observed at 1543 and 94°F a small T. mauritanica shot. 6.2 mi NE at 1546 and 87°F a Rana perezii (19097) shot in rapidly running water. 6.0 mi NE at 1552 and 85°F a T. mauritanica shot, in shade, on a culvert. 5.7 mi NE at 1605 and 95°F two T. mauritanica taken from a concrete bridge while a Lacerta lepida was observed. 2.3 mi NE at 1629 and 91°F a Lacerta muralis juvenile (19098-19100) was shot and a Lacerta lepida seen in crevice of bridge support (stone). 8.9 mi NE at 1800 and 82°F an AOR Lacerta lepida observed.

Tarentola mauritanica appeared to be partially in ecdysis and one specimen taken was losing his entire skin.

16 AUG 70

Facinas - Tarifa - Algeciras - San Roque - Algeciras - Vejer de La Frontera - Chiclana de la Frontera - Rota.

0849 - 1646 , 0849 = 70°F.

Facinas, 8.9 mi NE and: .1 mi SE at 0901 one Tarentola mauritanica seen sunning itself.

Facinas, 8.8 mi NE at 0938 and 78°F one large dipteran (ES 284) collected from windshield. 7.7 mi NE at 0951 and 80°F two Tarentola mauritanica seen and one taken a Lacerta muralis (19134-19137) also collected. 7.4 mi NE at 1006 and 77°F one Lacerta muralis shot off adornment to bridge. 7.2 mi NE one Lacerta muralis seen on wall at 1011 and 82°F. 7.0 mi NE at 1020 and 82°F a single

6 AUG 70

adult T. mauritanica shot. 6.9 mi NE at 1025 and 80°F
a young T. mauritanica shot from a culvert while in sun.
6.8 mi NE at 1037 and 79°F two Sacota muralis
(19134-19137) taken on bridge and one other seen. Fresh
water stream flowing beneath the bridge and heavy foliage also
present. at 1046 and 84°F two young T. mauritanica
seen on culvert. 6.7 mi NE at 1050 and 84°F a
T. mauritanica shot on wall of culvert; sunning and
no other seen. 6.6 mi NE at 1058 and 80°F a T.
mauritanica shot on culvert and one other seen.

Facinas, 1 mi NE and: 1.3 mi SE a pond
4' x 6' and 2 1/2' deep harbor two juvenile MM c.
leprosa and 12 Rana n. perezi none of which were
captured at 1159 and 98°F. 1.9 mi SE at 1240 and
103°F a T. mauritanica shot from under bridge. 2.0 mi.
SE at 1244 and 96°F a T. mauritanica seen on a wall.
2.7 mi SE at 1258 and 106°F a T. mauritanica
seen under a bridge and a Sacota lepida also observed
in the area. 4.8 mi SE at 1312 and 94°F two
young Sacota lepida seen in culvert. 4.9 mi SE at
1318 and 92°F two T. mauritanica seen 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.

5 AUG 70

Naval Base, Rota, Spain

2200 - 2330

Two Mauereya e. leprosa (CMFS 19141-19142) and two Rana e. perezi (CMFS 19143-19144) collected in ponds which are now almost dried up. Air temperature = 72°F ; Water temperature = 75°F and one Rana was collected on perimeter road to base.

26 AUG 70

Rota - Jerez de la Frontera - Arcos de la Frontera - Villamartín - Arcos - Jerez - Rota.

1900 - 2300; $78-72^{\circ}\text{F}$.

Nothing of herpetological interest noted this date.

29 AUG 70

Bonanza, 4.9 mi N. at La Alguida

1230 - 1800; 82°F

1235. Psammochromis a. alpinus observed on outer branches of Pistacia lentiscus about 5-6' off ground's surface.

1245. Acanthodactylus e. erythrusus shot in ES 282 (= C. album)

1300 = 79°F

Mosquitoes are at pest proportions now. Never noticed them before but now they seem to have reached epidemic proportions.

1309 - P. a. alpinus shot under P. lentiscus

1319 - A. e. erythrusus shot under J. phoenicea.

1320 - A. e. erythrusus seen in open sand vic. Myrtus communis and Juniperus phoenicea.

1330 - A. e. erythrusus seen in Corema album.

1334 - A. e. erythrusus seen in C. album.

1345 - A. e. erythrusus seen in open sand, J. phoenicea, and Corema album.

1435 = 83°F

1443 - A. e. erythrusus shot in Halimium halimifolium

1446 - A. e. erythrusus seen in J. phoenicea

29 AUG 70

- 1455 - P. a. algerius shot in Corema album.
- 1459 - P. a. algerius seen in Corema album and f. phoenicea
- 1506 - A. e. erythrurus shot in Corema album
- 1513 - A. e. erythrurus shot in Corema album
- 1520 - A. e. erythrurus seen in f. phoenicea
- 1525 - P. a. algerius seen in Corema album and f. phoenicea
- 1535 - A. e. erythrurus shot under f. phoenicea
- 1537 - P. a. algerius seen in f. phoenicea
- 1542 - A. e. erythrurus juvenile seen in Myrtus communis
- 1552 = 81°F
- 1552 - P. a. algerius seen in Myrtus communis
- 1558 - A. e. erythrurus shot under Pistacia lentiscus, in Cistus crispus, Halimium halimifolium, and Juniperus phoenicea.
- 1609 - A. e. erythrurus seen under f. phoenicea
- 1629 - A. e. erythrurus shot in Corema album // in ecstypis
- 1639 - P. a. algerius shot in f. phoenicea
- 1648 = 81°F
- 1655 - P. a. algerius juvenile seen in Myrtus communis
- 1658 - A. e. erythrurus juvenile shot in Myrtus communis
- 1709 - Juvenile A. e. erythrurus seen in f. phoenicea
- 1726 - Juvenile A. e. erythrurus seen in Corema album
- 1730 - 2 A. e. erythrurus seen in Corema album / one shot (Both subadults).
- 1737 - A. e. erythrurus shot in Corema album.
- 1741 - A. e. erythrurus shot in open sand.
- 1750 - A. e. erythrurus adult shot in Corema album while running from f. phoenicea.
- 1756 - A. e. erythrurus juvenile seen in Corema album.
- 1810 = 78°F (CONT'D IN PART [2])

MFS 19145-

A. e. erythrurus157 - ~~19145~~

FS 19158-19160

P. a. algerius

SPAIN, CÁDIZ PROV.

30 AUG 70

Boronyá, 4.9 mi. N. at La Alguida.

As of 1810 last night very few Acanthodactylus e. erythrum were being seen. Those which were present seem to stay in holes with sun-exposure.

0740 = 60°F

0814 - P. a. algirus seen in Pistacia lentiscus

0826 = 69°F

0830 = P. a. algirus seen in Myrtus communis

0858 - P. a. algirus shot in sand under Pinus pinea, Juniperus phoenicea, and Halimium halimifolium while sunning itself.

0908 - A. e. erythrum shot under J. phoenicea.0913 - P. a. algirus shot in Cistus crispus and J. phoenicea

0918 - P. a. algirus seen in C. crispus and H. halimifolium under Pinus pinea in pine needles.

0921 - P. a. algirus seen in C. crispus, H. halimifolium area under P. pinea on pine needles.

0922 - A. e. erythrum juvenile seen under Pistacia lentiscus.

0930 - A. e. erythrum shot in H. halimifolium and Pinus pinea.

0932 - P. a. algirus shot in Cistus crispus.0935 - A. e. erythrum seen in J. phoenicea.

0939 - A. e. erythrum (2) juveniles seen; one shot vic. Pistacia lentiscus.

0945 - A. e. erythrum subadult seen in Halimium halimifolium and J. phoenicea.

0949 - A. e. erythrum shot in sand while sunning in vic. H. halimifolium and J. phoenicea.

30 AUG 70

- 0952 - A. e. erythrus juvenile shot under H. halimifolium
 0957 - A. e. erythrus subadult shot under P. lentiscus
 0959 - A. e. erythrus juvenile seen in C. crispus
 1002 - A. e. erythrus juvenile seen in open sand.
 1006 - 4 A. e. erythrus seen in H. halimifolium area.
 1010 - 1 A. e. erythrus shot in H. halimifolium
 1025 - 15 minute break (Guardia Civil checking permits)
 1027 = 80°F
 1029 - P. a. algirus shot in Cistus crispus area.
 1030 - 3 A. e. erythrus juveniles seen vic. P. lentiscus
 1035 - P. a. algirus seen under Pinus pinea in conjunction
 with Cistus crispus.
 1038 - P. a. algirus seen in H. halimifolium and J. phoenicea
 1039 - A. e. erythrus juvenile seen in Corema album.
 1042 - A. e. erythrus seen in Corema album.
 1045 - Juvenile A. e. erythrus seen in J. phoenicea
 while sunning.
 1056 - A. e. erythrus juvenile seen in Corema album.
 1058 - P. a. algirus shot in Corema album.
 1059 - A. e. erythrus shot in Juniperus phoenicea,
Corema album, and P. lentiscus area.
 1106 - A. e. erythrus seen in Corema album.
 1109 - A. e. erythrus juvenile seen in J. phoenicea.
 1110 - A. e. erythrus juvenile seen in open sand near
Juniperus phoenicea
 1115 - P. a. algirus seen in J. phoenicea and on base of
Pinus pinea.
 1135 = 82°F
 1146 - A. e. erythrus seen in Juniperus phoenicea.

30 AUG 70

1148 - A. e. erythrum in H. halimifolium and Pistacia lentiscum

1150 - A. e. erythrum shot in H. halimifolium

1157 - A. e. erythrum shot in Cistus crispus

1159 - A. e. erythrum shot in Cistus crispus

1205 - P. a. alpinum shot vic. of J. phoenicea and Pistacia lentiscum

1210 - A. e. erythrum shot in sunny sand area near Juniperus phoenicea

1212 - A. e. erythrum in Juniperus phoenicea

1217 - P. a. alpinum in Pistacia lentiscum

1224 - A. e. erythrum seen in Juniperus phoenicea

1243 - 86°F

One Psommatismus a. alpinum was noted to emerge from Juniperus phoenicea on to 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 remove the previously heated sand from the area or 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 head toward the latter supposition.

CMFS 1961 - 1966 = P. a. alpinum

1967 - 1979 = A. e. erythrum

30 AUG 70

San Lucar de Barrameda, 1.0 mi N. one juvenile
Malpison m. monospiculatus

4 SEP 70

Rota - Pto. de STA Maria - Chiclana de la Frontera - Vejer de
La Frontera - Tarifa - Algeciras - San Roque - Sotogrande - Malaga
Province Border.

6 SEP 70

1700 - 2100, Nothing of herpetological interest noted.
Malaga Province Border - Sotogrande - San Roque - Algeciras -
Tarifa - Vejer de La Frontera - Chiclana de la Frontera -
Puerto de Santa Maria - Rota.

7 SEP 70

1000 - 1300, Nothing of herpetological interest noted.
Rota - Jerez - Alcalá - Los Barrios - Algeciras - Tarifa - Vejer -
Chiclana - Pto Real - Pto STA Maria - Rota

1930 - 0050 (8 September 70). 70 - 68°F

Jerez de la Frontera, 4.8 mi E. at 2010 and 72°F
one Rana v. perezi large adult seen AOR. 15.2 mi E.
at 2041 and 70°F one fresh subadult DOR Coluber hippocrepis
(19182) collected.

Los Barrios, 8.1 mi WNW one Rana v. perezi (19183)
collected AOR.

9 SEP 70

San Lucar de Barrameda - Trebujena - Jerez de la Frontera

1950 - 2130, 70°F.

Nothing of herpetological interest noted.

10 SEP 70

Jerez de la Frontera - La Barca de la Florida - San José
del Valle - Tempul - Algor - Areas de la Frontera - Jerez

1900 - 2245; 71 - 68°F.

Between La Barca and Tempul 3 rabbits seen AOR
and appear to be quite active.

San José del Valle, 4.4 mi E. one Cupimulgar noted AOR

10 SEP 70

Tempul, 2.6 mi E. a Caprimulgus noted AOR.Algar, 3.0 mi W. a Caprimulgus noted AOR.Arcos - Jerez; several Rattus noted AOR/DOR and the cooling trend noted in the past two days may be affecting the re-emergence of these animals.Rota Naval Base, Perimeter road to E. at 2240 and 68°F one juvenile AOR Coluber hippocrepis (19187) taken.

15 SEP 70

Naval Base - Jerez de la FIA - Arcos de la FIA - Villamartin - Arcos de la FIA - Jerez de la FIA - Naval Base
1940 - 2400 72 - 58°F.Villamartin, 3.9 mi WSW one Rana r. perezi seen AOR at 2240 (66°F).

Nothing else of herpetological interest noted.

19 SEP 70

A. e. erythrum =
CMFS 19191-19218
P. a. algerianus =
CMFS 19219-19221Rota - Chipiona - San Lucar - La Algaída (Bosanga, 4.9 mi N)
0900 - 1830 (0924 = 73°F)

1022 = 79°F.

1026 - Acontodactylus e. erythrum shot in Juniperus phoenicea.1032 - A. e. erythrum shot in Cistus crispus and Halimium latimifolium.1037 - A. e. erythrum seen in J. phoenicea.1039 - A. e. erythrum seen in J. phoenicea.1042 - A. e. erythrum juvenile seen in Corema album.1046 - A. e. erythrum juv seen in J. phoenicea.1054 - A. e. erythrum seen in open sand.1057 - A. e. erythrum juv followed through J. phoenicea, Corema album, and open sand.1101 - A. e. erythrum juv shot in Corema album.

19 SEP 70

1105 - Acanthodactylus e. erythrum juv. in Correa album1109 - A. e. erythrum adult seen in Correa album1112 - A. e. erythrum juv in Correa album1115 - A. e. erythrum juv shot in C. album1120 - A. e. erythrum shot in J. phoenicea1126 - A. e. erythrum shot in H. halimifolium1130 - A. e. erythrum seen in J. phoenicea1132 - A. e. erythrum shot in Cistus crispus /H. halimifolium area.1141 - A. e. erythrum juv. shot in H. halimifolium

1155 = 84°F

1158 - A. e. erythrum seen in Pistacia lentiscus1204 - A. e. erythrum shot in Pistacia lentiscus1213 - A. e. erythrum shot in J. phoenicea1226 - A. e. erythrum juv. and adult seen in J.phoenicea1229 - A. e. erythrum shot under H. halimifolium
and Pistacia lentiscus1232 - A. e. erythrum seen in H. halimifolium1237 - A. e. erythrum seen in J. phoenicea1242 - A. e. erythrum shot in H. halimifolium area.1246 - A. e. erythrum shot in H. halimifolium area1255 - 2 A. e. erythrum seen in Cistus crispus1256 - juv. A. e. erythrum seen in J. phoenicea1259 - Psammodromus a. algirus seen in J. phoenicea1312 - A. e. erythrum shot in H. halimifolium area

Flies are terrible right now // no mosquito noted.

1316 - A. e. erythrum seen under P. lentiscus

1322 - 1355 = Lunch

19 SEP 70

1359 - Icanthodactylus e. erythrinus seen in M. communis1406 - A. e. erythrinus seen in J. phoenicea1419 - A. e. erythrinus seen in J. phoenicea1430 - Psammodromus a. algirus seen in J. phoenicea1438 - A. e. erythrinus shot in H. halimifolium area1449 - Psammodromus a. algirus shot in J. phoenicea /Cistus crispus area.

1500 = 91°F

1512 - A. e. erythrinus seen in M. halimifolium and Juniperus phoenicea.1516 - A. e. erythrinus seen under J. phoenicea.1518 - A. e. erythrinus shot in Corema album.1524 - A. e. erythrinus shot in Corema album and wind has started -- wasn't windy earlier.1528 - A. e. erythrinus shot under Corema album.1532 - A. e. erythrinus seen in J. phoenicea and Corema album area.1540 - P. a. algirus seen in J. phoenicea1547 - A. e. erythrinus shot in J. phoenicea and Cistus crispus.1553 - A. e. erythrinus shot in Pinus pinaster area under J. phoenicea.1557 - A. e. erythrinus shot in open sand after having been in J. phoenicea1559 - A. e. erythrinus seen in J. phoenicea and Pinus pinaster area.1606 - A. e. erythrinus seen in Corema album / J. phoenicea.1609 - A. e. erythrinus juv. seen in Corema album

19 SEP 70

1627 = ES specimen taken #287

1627 = 91°F

1636 - A. e. erythrurus shot in H. halimifolium
and Cistis crispus

1643 - Psammochromis a. algeri shot in Corema album.

1646 - A. e. erythrurus shot in Corema album

1652 - A. e. erythrurus juv. shot H. halimifolium
and Juncus albus area.

1659 - A. e. erythrurus seen in Corema album

1701 - A. e. erythrurus seen in Corema album.

1704 - " " " "

1713 - A. e. erythrurus juv. shot in Juncus ^{acutus} ~~alba~~

1716 - A. e. erythrurus juv. seen in Corema album

1718 - A. e. erythrurus juv. seen in Corema album

1726 - A. e. erythrurus shot in J. phoenicea

1728 - P. a. algeri seen in J. phoenicea

1730 - A. e. erythrurus seen in Corema album.

1733 - A. e. erythrurus juv. seen in Corema album / H. halimifolium

1736 - A. e. erythrurus juv. seen in Corema album

1740 - A. e. erythrurus juv. seen in Corema album

1758 - A. e. erythrurus juv. seen in Corema album

1759 - P. a. algeri shot in J. phoenicea

1801 - A. e. erythrurus juv. shot in J. phoenicea
and Corema album

1819 - A. e. erythrurus juvenile seen in C. album

1821 - 2 P. a. algeri heard in M. communis.

1830 = 85°F

END

20 SEP 70

A. e. erythrurus

CMFS 19222-19224

P. a. alpinus

CMFS 19225-26

La Algaida (Boranga, 4.9 mi N) - San Lucar - Chipiona -
 Rota - PTO STA Maria - Chiclana de la FTA - Vejer de la
 FTA - Torija - Puerto del Cabrito - Algeciras - San Roque -
 Sotogrande - Los Barrios - Casas del Castaño - Alcalá de los
 Gazules - Puerto Real - Naval Base

0730 - 2215

La Algaida (Boranga, 4.9 mi N)

0730 = 58°F [Sunrise]

0810 = 62°F

0850 - Psammodromus a. alpinus heard in Pinus
lenticus (= 68°F)

0904 - One large adult ♂ ELK seen in area of
 sandy knolls

0924 - A. e. erythrurus juv. seen in C. album0931 - A. e. erythrurus juv. shot in H. halimifolium0939 - juv. A. e. erythrurus shot under P. pinus

0957 = 77°F

1003 - P. a. alpinus shot in M. communis1006 - A. e. erythrurus seen in open sand.1024 - A. e. erythrurus seen in Corena album

1030 - P. a. alpinus shot under P. pinus in vic. of
J. phoenicea

1036 - A. e. erythrurus shot in H. halimifolium and
J. phoenicea area

1039 = 83°F

END

Chipiona, 2.5 mi. SSE one juvenile Malpison m.Osmospiculatus seen DORPuerto del Cabrito, 4.3 mi NNW at 1535 a Rora

136109655

W 5.56322

LOS MOLIN

20 SEP 70

L. perezii seen in pond where tadpoles normally taken. No larvae in evidence at this time and the pond level is > 1' lower than previously. 6.5 mi NNW from 1544-1601 under heavy wind a small survey was made of the apparent elevated plateau. Vegetation consists of Q. suber (several), Chamaecroa humilis (common), Carlinia racemosa (common), and Cistus ladanifer (L) is prevalent.

Algeiras, 7.7 mi SW a DOR Elaphe scalaris (19227) was collected.

Los Baños, 3.4 mi NNW a 2 1/2' DOR E. scalaris was noted. 6.1 mi NNW a DOR Malfolium m. monosperulorum was noted.

Alcalá de los Gazules, 7.6 mi WNW a DOR Elaphe scalaris (19228) collected.

Puerta Real, 9.7 mi E. at 2130 and 72°F an AOR Macropododon cucullatus (19229) was collected.

22 SEP 70

Puerta de Santa Maria, 1.8 mi. ESE - Jery de la F^{ta}.

1920 - 2000, moisture plentiful only under rocks.

One juvenile Natrix maura (19230) taken at 1930 with nothing else to note. 70°F at 2000.

Jery de la Frontera, 8.1 mi. SSE a 2' DOR Elaphe scalaris seen.

25 SEP 70

Jery de la Frontera - La Barca de la Florida - San José del Valle - Tempul - Galis - END.

74°F, 1400 - 1800

San José del Valle, 1.9 mi E. a Lacerta lepida seen DOR.

Galis, .4 mi E from 1555-1605 at 78°F a stone bridge area was surveyed. One Tarentola mauritanica (19231), 1 Psemmochromis a. algerus (19234-19236), and 2 Lacerta

25 SEP 70

muralis seen .6 mi E. from 1610-1616 at 79°F
 one Psemmochromus a. algeri juvenile (19234-19236)
 and one Lacerta muralis shot (19232-19233) while
 one Tarentola mauritanica seen. 1.8 mi ENE from
 1625-1637 and 79°F two Lacerta muralis seen on
 bridge. Pond in this area from which Rana have been
 previously collected is now completely dry. 3.0 mi ENE
 at 1650 and 79°F one Lacerta muralis shot (19232-19233) from
 retaining wall. 6.6 mi ENE a DOR Bufo b. spinosus
 was observed. 10.4 mi ENE at 1900 a juvenile P. a.
algeri was taken from side of granite rock. 1932 = 62°F.

26 SEP 70

Urbique - Benasquez - Villalbuena del Rosario - Zahara -
 Benasquez - Urbique - Jerez - Pto de Sta Maria

0900 - 1800, 70°F @ 0936.

Urbique, 3.6 mi S. a Lacerta muralis seen on stone
 wall at 0948 (72°F).

Grazalema, 6.6 mi NE a DOR Malpelo m. mossesulatus
 noted. 1.5 mi ENE at 1110 and 74°F a Lacerta muralis
 seen on stone wall.

Zahara, 1.8 mi S. a Lacerta muralis seen under
 bridge living in wall of bridge and one L. muralis (19237)
 shot on top of bridge at 1205 and 82°F.

Benasquez, 7.5 mi E. from 1300-1315 2 P. a. algeri
 (1 juvenile) seen active area of granite outcroppings at 76°F.
 6.6 mi E. at 1325 and 82°F a Lacerta muralis noted.
 4.2 mi E. there are granite outcroppings behind a deserted
 public building on which Lepus were observed along with
 1 P. a. algeri. It might also be noted that flies in
 this area were heavy today.

27 SEP 70

Rota - Jerez - Medina Sidonia - Alcalá de los Gazules -
 Los Barrios - Algeciras - Torija - Vejer - Chiclana -
 P^{to} Real - P^{to} de S^{ta} Maria - Rota

0900 - 2000 , 69°F - 76°F

Alcalá de los Gazules, .9 mi. N. a DOR Bufo h.
bufo was seen DOR and 9.1 mi SE a Coluber hippocrepis
 was seen DOR on C-440. 16.0 mi SE, and 3.1 mi SW
 on dirt road between 1400-1440 one Psammochromis a.
algirus (19239) and one Triton mauritanica (19238)
 [Both juveniles] were collected in a granite outcropping area
 typified by Q. suber, Ulex sp., Cistus ladanifer, Carthamus
racemosa, and Pteridium sp. (aquilinum??). The area
 is low montane and this day is windy with 78°F temps.

Los Barrios, 7.9 mi. NNW in a creek bed area
 two juvenile Rana r. perezi (19241-19242) were collected and
 several adults were observed active. A juvenile Psammochromis
a. algirus (19240) was taken, along with a Natrix maura
 (19243) and a Natrix natrix (19244) 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.

Torija, 5.5 mi. NW. a Natrix maura was observed
 DOR.

Vejer de la Frontera, 6.0 mi SE a Malsodon m.
monspessulanus (19245) juvenile was collected DOR at 1900

29 Sep 70

Rota Naval Base, Stable area.

2100 - 2120 (72°F)

Nothing seen active in the Juncus acutus area where
R. r. perezi and M. c. leprosa have been noted before.

1 OCT 70

Rota - Chipiona - San Lucar - Jerez - Arcos - Villamartin - Algodonales and return.

1750 - 2300, 72°F.

Algodonales, 5.4 mi. WNW at 2032 and 74°F a Discoglossus p. pictus (19246) collected AOR.

Villamartin, 5.7 mi. NE on N-342 at 2130 and 70°F one juvenile Elaphe scalaris (19247) collected DOR.

Arcos de la Frontera, 3.1 mi. NE on N-342 at 2220 and 72°F another juvenile Elaphe scalaris (19248) collected DOR.

2 OCT 70

Rota - Puerta de Santa Maria - Puerto Real - Jerez de la F^{ra} and return 2000 - 2230, 75-66°F.

Puerto Real, 12.6 mi. E. at 2104 and 72°F an injured adult Macropsodon cucullatus (19249) was collected AOR.

Naval Base, Rota at 2240 and 66°F the first Bufo calamita (19250) of the fall season collected.

7 OCT 70

P^{to} Real - Chiclana - Vejer - Toriña - Algeciras - Los Barrios - Casas del Castaño - Alcalá de los Gazules - P^{to} Real.

1800 - 2315 (Rain intermittent from 0745-0930), overcast all day, 65°F.

Los Barrios, 5.2 mi. NW at 2034 and 60°F one Bufo b. spinosus seen D.O.R.

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

8 OCT 70

Naval Base - P^{to} Sta Maria - Jerez - Alcalá de los Gazules - Casas del Castaño - Los Barrios - Algeciras - END.

1800 - 2250 Some rain today.

Alcalá de los Gazules, 4.2 mi. ESE a Hedgehog seen A.O.R.

8 OCT 70

2 DOR
1 Bb
4 JUV
2 JUV
2 JUV
2 JUV
Bb 2
DOR 1
DOR 1
DOR 1
DOR 2
Dj 3
7 +
2 DOR
Hm 2

4.5 mi ESE one Caprimulgus seen AOR. 5.8 mi ESE at 2017 and 54°F a Pleurodela waltli (19251) collected AOR. 10.1 mi ESE another AOR Caprimulgus noted. Casa del Costano, 1 mi WNW @ 2036 and 54°F one Discoglossus p. pictus seen AOR and one Bufo b. spinosus (19253-19270) collected AOR. 2.5 mi WNW at 2047 and 51°F a D. p. pictus (19271-19277) collected. 2.1 mi WNW @ 2051 and 52°F another B. b. spinosus taken (19253-19270) and one Lepus seen AOR at 1.6 mi WNW. 0.1 mi WNW at 2100 and 50°F a large AOR Bufo b. spinosus (19253-19270) collected. 1.0 mi ESE and at the sign post for casa del costano approx. 2110 and 50°F 2 B. b. spinosus taken AOR (~~19253-19270~~). 1.8 mi ESE at 2114 and 50°F (3) D. p. pictus and (1) Bufo b. spinosus taken AOR (19271-19277 = D. p. pictus; 19253-19270 = B. b. spinosus). 2.4 mi ESE at 2118 and 50°F one Bufo b. spinosus (19253-19270) taken and one D.O.R. seen. 2.5 mi ESE at 2120 and 50°F an AOR B. b. spinosus (19253-270) taken. 3.3 mi ESE at 2130 and 52°F 1 D. p. pictus and 1 Hyla a. meridionalis seen and one B. b. spinosus collected (19253-19270). 3.4 mi ESE a B. b. spinosus (19253-19270) collected at 2132 and 54°F (one AOR D. p. pictus seen). 3.7 mi ESE at 2135 and 52°F one AOR B. b. spinosus collected. 4.5 mi ESE and 5.1 mi ESE a DOR and an AOR B. b. spinosus (19253-19270) respectively. 5.3 mi ESE a juvenile B. b. spinosus collected and at 2145 the rain started again. 5.4 mi ESE at 2146 and 53°F 2 juvenile B. b. spinosus seen. 5.5 mi ESE a juvenile

8 OCT 70

Bufo bufo spinosus (19253-19270) collected 6.2 mi ESE at 2154 and 51°F on AOR B. b. spinosus taken (19253-270) 6.3 mi ESE another B. b. spinosus collected.

~~Bb DOR~~~~Di 1~~~~Horn 1~~

Los Barrios, 6.5 mi WNW a DOR B. b. spinosus noted. 3.1 mi WNW at 2217 and 52°F a Discoglossus p. pictus (19271-19272) collected AOR. and at 2.6 mi WNW another specimen was seen. 2.6 mi WNW at 2220 and 52°F a Hyla a. meridionalis was taken AOR (19252).

10 OCT 70

Bonanga, 4.1 mi N. "LA ALCAIDA"

1215 = 64°F

1221 - 1 Acanthodactylus e. erythrum juvenile shot while sunning in pine needle area of H. halimifolium and Juniperus phoenicea.

1224 - A. e. erythrum juv seen in J. phoenicea

1226 - A. e. erythrum juv shot J. phoenicea

1228 - A. e. erythrum subadult seen in J. phoenicea

1229 - A. e. erythrum seen in open sand

1230 - A. e. e. juv shot J. phoen.

1232 - A. e. e. juv. seen C. album

1238 - A. e. e. juv. seen J. phoen.

1241 - A. e. e. adult shot J. phoen.

1243 - A. e. e. juv. seen in C. album.

1245 - A. e. e. juv. seen in C. album.

1247 - 2 Pseudochromis a. alpinus juv seen C. album

1249 - A. e. e. juv in C. album

1253 - A. e. e. juv shot travelling thru open sand

1257 - A. e. e. adult shot C. album

1258 - A. e. e. juv + P. a. a. juv. seen in C. album

10 OCT 70

1301 - a. e. e. juv seen in J. acutus and juv.P. pinea1303 - a. e. e. seen in C. album1305 - a. e. e. juv seen in C. album1307 - a. e. e. seen sunning under C. album1309 - a. e. e. seen active/open sand

1323 = 67°F

1325 - a. e. e. adult seen active H. halimifolium -J. phoenicea area1331 - a. e. e. adult sunning in open sand.1336 - a. e. e. adult shot in C. album1337 - a. e. e. juv. seen C. album1339 - a. e. e. juv seen C. album1341 - P. a. a. juv in C. album1344 - a. e. e. shot in C. album1347 - a. e. e. juv. seen in open sand1350 - a. e. e. juv. seen in open sand + C. album1354 - a. e. e. adult seen in C. album and

1 shot

1357 - a. e. e. adult seen in C. album1401 - a. e. e. juv. shot in C. album + J. phoen.
area.1405 - a. e. e. juv. in J. phoenicea1406 - adult a. e. e. shot while sunning in area
of J. phoenicea.1410 - adult a. e. e. shot while foraging vic P.
pinea and H. halimifolium1412 - 2 a. e. e. subadults seen in H. halimifolium
area of open sand.

10 OCT 70

1419 - Acanthodactylus e. erythrum juv. seen in open sand

1420 - A. e. e. juv in open sand

1423 - A. e. e. juv shot in H. halimifolium and J. acutus area.

1427 - A. e. e. juv in C. album

1429 - A. e. e. juv in J. phoen.

1432 - A. e. e. adult shot in C. album

1439 - A. e. e. adult seen in C. album

1442 - A. e. e. juv. seen in C. album

1447 - A. e. e. juv. seen in C. album

1456 - A. e. e. juv. shot in open sand.

1459 - A. e. e. juv. shot in H. halimifolium,

Cistus crispus area

1515 = 66° F

1520 - A. e. e. juv. shot in needles of P. pinea in open sand.

1531 - A. e. e. juv. seen in C. album

1534 - A. e. e. subadult seen in C. album

1539 - A. e. e. adult shot in C. album, 1 juv. seen in J. phoenicea.

1545 - A. e. e. shot in H. halimifolium, Juncus acutus area.

1547 - A. e. e. juvenile seen in C. album

1550 - A. e. e. juv shot in open sand of C. album area.

1553 - A. e. e. juv in open sand / H. halimifolium

1556 - A. e. e. juv in C. album area

1559 - A. e. e. subadult shot while sunning under

10 OCT 70

C. album

1601 - a. e. e. shot under H. halimifolium
in direct sun

1607 - a. e. e. juv. shot in open sand near
C. album and J. phoenicea

1610 - a. e. e. seen in J. phoen

1613 - 2 a. e. e. adults seen in C. album

1616 - 2 a. e. e. juv. seen in C. album

1619 - 1 a. e. e. seen (juv) in C. album

1629 - 1 a. e. e. juv. seen in C. album

1634 - a. e. e. juv seen in C. album

1636 - a. e. e. juv seen in C. album

1638 - a. e. e. juv shot in J. phoen

1642 - Prumodromus a. alpin adult seen in
J. phoenicea

1644 - P. a. alpin juv. shot in C. crispum at
base of P. pinea

1650 - adult a. e. e. shot in Chamaecyparis humilis
(only one specimen of this plant in area)

1712 = 66°F

1720 - juv. a. e. e. seen in C. album

1800 = 63°F (END)

11 OCT 70

Bonanza, 4.1 mi N. "LA ALGAIDA"

Sunrise ± 0740

0830 = 46°F

0910 = 52°F

0922 = P. a. alpin shot in sun under Myrtus
communis near Pistacia lentiscus; ground cover consists
of Pinus pinea needles

11 OCT 70

0928 - Panmodromus a. algeri juv. seen in low shrubby and P. pinia needles.

0952 - 2 P. a. algeri juv. seen active in C. album.

0955 - a. e. e. juv. shot while sunning under C. album.

0958 - a. e. e. juv. seen in C. album.

1002 - a. e. e. juv. shot in open sand near H. halimifolium / Cuma album area

1004 - a. e. e. juv. seen in C. album.

1027 = 61°F

1038 - a. e. e. subadult seen in J. phoen.

1043 - a. e. e. juv. seen in C. album.

1045 - a. e. e. juv. shot in open sand near C. album.

1050 - P. a. algeri seen (juv) in C. album.

1052 - a. e. e. juv. shot under C. album while sunning.

1055 - a. e. e. juv. seen in C. album.

1058 - a. e. e. juv. seen in J. phoen.

1101 - P. a. algeri juv. seen sunning in C. album.

1105 - 3 juv. a. e. e. seen in open sand area, 1 shot.

1107 - P. a. algeri seen in C. album.

1111 - a. e. e. juv. seen in H. halimifolium area.

1116 - P. a. algeri seen in H. halimifolium area.

1123 = 65°F

1136 - a. e. e. juv. shot in H. halimifolium / J. phoenicea area.

11 OCT 70

1139 - A. e. e. juv shot in open sand area f. phoenicea.

1142 - A. e. e. juv shot in open sand area f. phoen.

1144 - A. e. e. shot (juv) in C. album.

1145 - A. e. e. juv. observed in C. album

1147 - A. e. e. juv. seen in Juniperus phoenicea.

1151 - A. e. e. juv. seen in open sand

1153 - A. e. e. juv. shot in open sand

1155 - A. e. e. juv. seen in C. album.

1157 - A. e. e. juv. seen in open sand

1158 - 2 A. e. e. juv. seen in open sand

1201 - A. e. e. juv. shot in open sand.

1204 - adult A. e. e. shot in open sand

1205 - adult A. e. e. shot open sand vic. C. album.

1210 - 3 A. e. e. subadult area of H. halimifolium and J. phoenicea.

1211 - A. e. e. juv. seen vic. J. phoenicea

1215 - adult A. e. e. seen in area of J. phoenicea

1216 - juv. P. a. algium seen in J. phoenicea

1220 - adult P. a. algium in H. halimifolium /

Cistus crispus area.

1227 - A. e. e. adult shot H. halimifolium

1230 = 69°F END

10 OCT 70 - 19278 - 19289 = A. e. erythrum

19291 = P. a. algium

10-11 OCT 70 - 19290 (25) = juv. A. e. erythrum

11 OCT 70 - 19292-19294 = A. e. erythrum

19295 = P. a. algium

1410 - A. e. erythrum juv. seen on exit road.

11 OCT 70

1400 - 2200

San Lucar de Barrameda, 1445, 70°F, 8.5 mi ESE on ferry road one Mulpholen m. monspessulanus juvenile seen DOR.

Arco de la Frontera, 7.6 mi W, one Lacerta lepida noted DOR at 1515. 7.4 mi E between 1542 and 1611 (72°-70°F) in a heavily overgrown area of Quercus coccifera, Cistus crispus, with Ulex sp. and Chamaecyparissus humilis and some Lagotis monosperma (4 Quercus suber in area); 2 Lacerta muralis sp. seen on old bridge and one (19297) captured. 1 Pseudoeurycea a. alpinum (19296) juvenile captured under small, loosely fixed, rock.

El Bosque, 11.4 mi. W. 2 Calotes hippocrepis skins seen at base of bridge. Lagotis monosperma quite common here.

Vallabuenaga del Rosario, 2.3 mi. NW a large DOR Bufo bufo sp. noted D.O.R.

Grangalema, 1.2 mi E. at 1808 and 56°F one Coronella girondica ~~macropunctata~~ (19298) found DOR.

Zahara, 1.7 mi. S. one Lepus sp. seen at sunset (1915).

Algodonales, 1930 and 60°F one DOR Rana r. perezi noted.

Villamartin, 2.3 mi NW at 2020 and 58°F one Bufo calomita (19299) collected AOR.

13 OCT 70

San Lucar de Barrameda - La Algaicha - San Lucar - Chipiona - Rota

1930 - 2100, 64°F - 62°F.

13 OCT 70

La Algaída, 2007, 62°F one Bufo calamita (19301) collected on dirt entrance road.

Rota, 2.3 mi. WNW at 2100 and 63°F one Pelobates cultripes taken AOR. (CMFS 19300)

16 OCT 70

Puerto de Santa Maria - ferry 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 - 2328

Tempul, 6.0 mi ESE at 1415 and 75°F one juvenile Saxatilis lepida seen AOR.

Sierra del Aljibe, 1530-1625, 70°F, collected in area of Ulex, Q. suber, Q. coccifera, and no Viper were noted. 1 P. a. alpinus juvenile collected and (5) scorpions were seen but not taken.

Alcalá de los Gazules, .8 mi. N. a DOR Caluromys hippocrepis was noted.

Galis (417 M), 3.8 mi NE from 1800-1845, 62°F, surveyed Pinus area w/ Ulex and much granite. 1 Salamandra s. bejarana (19306) collected deep under granite in Pinus needles and much soil about 1815.

Alcalá de los Gazules, 6.8 mi ESE at 2050 and 64°F one DOR Natrix maura seen on C-440.

7.2 mi ESE at 2050 and 64°F one Pelobates cultripes (19304) collected AOR. 7.7 mi. ESE a DOR Caluromys hippocrepis (subadult) observed.

Casas del Castaño, 9.5 mi NNW at 2130 and 63°F one AOR Hyla a. meridionalis (19305) taken.

16 OCT 70

7.2 mi. WNW at 2132 and 62°F one Bufo b. spinosus (19302-19303) collected. 6.4 mi WNW at 2142 and 62°F one AOR Elaphe scalaris (19307) taken. 4.5 mi. WNW at 2150 and 62°F another AOR Bufo b. spinosus (19302-19303) taken. 2.6 mi. WNW a D.O.R. Discoglossus p. pictus seen.

Tarifa, 5.8 mi NW a fresh DOR Natrix maura seen at 2245 and 64°F.

17 OCT 70

PTD STA Maria - PTD Real - Chiclana - Vejer - Facinas - Los Baños - finera de la FTA - Los Cañiles (Málaga) - Galis - Tempul - San José del Valle - Jerez de la FTA. 1000 - 1900, 68°F, overcast.

Vejer de la Frontera, 1.3 mi. NW at 1054 and 70°F one DOR Natrix natrix (19308) collected.

Facinas, 5.3 mi. ENE at 1141 and 67°F (2) Lacerta muralis seen, one shot on bridge (19311-19317). 6.0 mi ENE at 1153 and 65°F one Rana ~ paragii seen in stream beneath bridge. 6.6 mi ENE, 1200-1218, in area under bridge one black beetle picked up under rock (ES 289). 6.6 mi ENE at 1221 and 58°F one Lacerta lepida (19309) juvenile shot off rock. 7.4 mi ENE 2 Bufo b. sp. seen DOR. 8.2 mi. ENE at 1246 and 66°F one Macrophthalmus cucullatus (19310) found in culvert along w/ ES 290 + 291. 8.8 mi ENE a Bufo b. spinosus found DOR and another seen at 12.4 mi ENE. 13.4 mi ENE at 1430 and 75°F a Tarentula mauritanica (19318-19320) shot. 13.7 mi ENE at 1435 and 77°F a I. mauritanica shot off bridge abutment. 14.1 mi ENE at 1445 and 78°F (2) Lacerta

17 OCT 70 muralis (19311-19317) shot off bridge. 14.3 mi ENE at 1459 and 76°F a T. mauritanica adult (19318-19320) shot and at 1503 (72°F) (2) T. mauritanica seen but not collected.

Finera de la Frontera, 1.8 mi NW at 1608 and 70°F one Lacerta muralis ssp. (19311-19317) shot from bridge and one P. a. algeris seen. 3.0 mi. NW at 1620 and 74°F a L. muralis ssp (19311-19317) shot from stone wall. 4.0 mi NW a well-patterned Coluber hippocrepis skin found (freshly shed). 5.3 mi NW a Lacerta muralis ssp. (19311-19317) shot and one observed on granite rock formation at 1645 and 75°F. 6.5 mi. NW at 1655 and 74°F a L. muralis ssp. seen on a large rock but not taken. 6.6 mi. NW at 1700 and 75°F a L. muralis shot. (2 Pinus sp seen in area). 6.7 mi NW Pinus are also noted.

18 OCT 70 Rota - Jerez de la Frontera - La Barca de la Florida - San José del Valle - Tempul - Galis (@ 417 M) - KM 30 - Prov. de Malaga - Aljibe and return.

0945-1830, clear + sunny, 66°F.

Galis, .7 mi SE at 1206 (69°F) no Pinus noted at top of rock outcroppings; 2 millipedes, 1 centipede, and 1 scorpion (ES 292-297) taken along with a Psammochromus a. algeris (19325). 5.8 mi SE and 5 mi in an area of Pinus. 5.9 mi SE from 1238-1414 (74°F) a series of scorpions taken in area mainly composed of Pinus sp., Q. suber, L. sp., Q. L. stoechas, Ulex sp. at KM 40. 5.4 mi SE at 1420 (78°F) 2 Lacerta muralis (CMFS 19322-19324) shot

SVB
10/20/14

MALAGA PROV.

17 OCT 70

Las Conillas, 3.2 mi NW in a fringe area
of Pinus sp. and a pine forest begins at 3.3 mi.
NW. 3.4 mi NW (KM mark 40) is heavy Pinus
area and at 3.6 mi. NW the Pinus disappears
once again. 3.9 mi NW = 39 KM. and at
.8 mi SE of Salis aljibe is on left (.1 mi.
SE of Cordig Province line.) [see previous page]

CÁDIZ PROV.

18 OCT 70

from bridge 5.5 mi SE at 1430 (82°F) another Lacerta muralis shot from bridge (CMFS 19322-19324). 3.7 mi. NE on C-333) at KM 54 (70°F) from 1458-1710 in a Pinus area 2 scorpions, 2 large black spiders, centipede, 10 ants taken and Psammodesmus a algirus seen in area.

25 OCT 70

Juz de la Frontera - La Brea de la Florida - San José del Valle - Alcalá de los Gazules - Puerta Real

1200 - 1530.

San José del Valle, 8 KMS South at 1257 and 74°F one Lacerta lepida adult (19335-19337) found under rock at road's shoulder. 10 KMS South (1330-1345) two (2) Lacerta lepida found under rock, 1 subadult and 1 adult also observed (CMFS 19335-19337). 9 KMS North from 1400-1415 in area of no cover but annual grasses, C. racemosa, and many small rock scorpions and centipede seen -- nothing collected.

24 OCT 70

Bonanza, 4.1 mi N. at La Algaída.

1230 = 70°F

1242 - Acanthodactylus e. erythrinus juvenile shot in Corema album.

1245 - A. e. e. juv. seen in J. phoenicea.

1247 - A. e. e. juv. shot in C. album. Darning needles quite common.

1258 - A. e. e. juv. seen in C. album.

1305 - 2 A. e. e. juv. seen in J. phoen. + C. album.

1307 - A. e. e. juv. shot in C. album.

1310 - A. e. e. juv. seen in J. phoen.

1314 - A. e. e. juv. seen in C. album.

1317 - A. e. e. juv. shot in C. album.

24 OCT 70

- 1320 - a. e. e. juv. shot in C. album.
- 1322 - a. e. e. subadult shot in C. album.
- 1325 - a. e. e. juv. shot in open sand.
- 1326 - a. e. e. adult shot in open sand.
- 1329 - a. e. e. adult shot in open sand.
- 1332 - a. e. e. adult shot and juveniles seen in Corena album.
- 1335 - a. e. e. juv. seen in C. album.
- 1337 - a. e. e. juv. shot in C. album.
- 1343 - a. e. e. adult seen in J. phoen.
- 1345 - a. e. e. adult shot in H. halimiphilum.
- 1353 - a. e. e. juvenile shot; 2 seen.
- 1400 = 74°F
- 1415 = 74°F
- 1431 - a. e. e. juv. shot in C. album.
- 1435 - a. e. e. juv. seen in open sand.
- 1437 - a. e. e. juv. seen in J. phoen.
- 1440 - a. e. e. juv. shot in Corena album.
- 1441 - a. e. e. juv. seen in C. album.
- 1442 - a. e. e. juv. shot in C. album.
- 1446 - a. e. e. adult seen in C. album.
- 1450 - a. e. e. juv. shot in J. phoen.
- 1452 - a. e. e. subadult shot in J. phoenicea.
- 1453 - a. e. e. juv. shot in C. album. Lepus sp. seen under J. phoenicea.
- 1455 - a. e. e. adult seen in J. phoenicea.
- 1458 - a. e. e. juv. seen in C. album.
- 1501 - a. e. e. juv. shot in Juncus acutus.
- 1502 - a. e. e. juv. shot in H. halimiphilum area.

24 OCT 70

1504 - 2 juv. A. e. erythrum seen in E. album.1506 - A. e. e. juvenile shot in Coccyz album.1520 = 73° F END

26 OCT 70

CMFS 19326 (~~15~~); 19327-19334 = A. e. erythrum

Puerto Real and Road to East.

2100-2200 [W.R. Maxwell and myself].

One DOR Malpica m. monspesulanus (CMFS 19338) and one AOR Elaph. scalaris (CMFS 19339) collected.

29 OCT 70

Rota - Chipiona Road.

2000-2120

Rota, 5 KMS NW at 2032 (2) AOR Pelobates cultripes (19340-19342) collected. 7 KMS NW at 2103 the third AOR P. cultripes (19340-19342) was collected.Chipiona, 4 kms SE at 2045 one Bufo calamita (19343-19344) was collected. 5 KMS SE at 2103 the second B. calamita was collected.

01 NOV 70

Naval Base - Pto Sta Maria - Pto Real - Chiclana de la Frontera - Vejer de la Frontera - Facinas - Los Banios - Casas del Castaño - Alcalá de los Gazules - Pto Real

1200-2145; 75° F

Facinas, 8 kms ENE at 1357 (72° F) (3) Lacerta muralis seen, one collected (19345-19349). One Tarantola mauritanica also seen. 9 kms ENE at 1406 (2) Tarantola mauritanica shot at bridge, both were sunning.

= A juvenile about 1" long was taken. Color: generally murky brown with darker brown back, venter patternless and grey, chin speckled, arms speckled grey and specimens look pretty much like adults for coloration (see diagram) =

01 NOV 70



light brown - tan
Dark brown - black

Underneath light grey
(eggshell white)

I. mauritanica juvenile diagrammatic representation of color pattern (Dorsal).

13 km ENE at 1425 (70°F) a Lacerta lepida (CMFS 19356) collected from a hole in sand bank. Q scrub basic vegetation with little undergrowth. Pistacia lentata, Cistus crispus, and other plants in area. 15 km ENE at 1448 (70°F)

5 Lacerta muralis seen and one captured (19345-19349), one Tarentola mauritanica seen. 16 km ENE at 1456 4 Lacerta muralis seen, one captured. a Tarentola mauritanica taken from bridge (CMFS 19350-19355) during intermittent sunshine. 16 km ENE at 1500 2 Lacerta muralis seen and one was shot another L. muralis seen at 1506. 19 km ENE at 1524 a L. muralis

seen on retaining wall. 20 km ENE from 1530 - 1537 a L. muralis and a T. mauritanica taken from a bridge at 70°F. 21 km ENE at 1552 (68°F) a T. mauritanica taken from culvert wall and one sub-adult seen. 21 km ENE at 1555 at 72°F a bridge wall yielded 1 I. mauritanica while another was noted but not captured.

1700 - 1850 = lost time for lunch, etc.

Casas del Costano, 11 ~~km~~ Km SE at 1905 a Bufo b. spinosus (CMFS 19357) collected AOR while at 1906 a Hyla a. meridionalis was seen AOR but not collected.

01 NOV 70

Alcalá de Los Goyales, 5 kms NW a DOR
Sacota lepida was noted.

03 NOV 70

Puerto Real, 17 kms. E. at 2052 an Elaphe
scalaris (CMFS 19358) was collected AOR.

05 NOV 70

Puerto Real - Medina Sidonia - Puerto Real.
 2130 - 2230 (approx) W.R. Maxwell and I surveyed
 the road with no specimens observed.

Puerto de Santa Maria - Puerto Real - Medina Sidonia -
 Chiclana de la Frontera - Puerto Real - Pto Sta Maria.
 Puerto de Santa Maria, 1.8 mi ESE, 1730-1830,
 Moisture level very low in Juncus acutus area and
 only a few arthropods were seen. One Malpison m. monsp-
ulorum skin seen (70°F).

06 NOV 70

Puerto Real, 10 kms E. a DOR M. m. monspulorum
 (CMFS 19363) collected fresh at 1907.

Naval Base - San Lucar de Barrameda (La Algaída).
 1348 - 1830, 75°F.
 Naval Base, area of stables, one Chamaecha chamaecha
 (CMFS 19359) collected at 1348 AOR. Area directly adjacent
 contains Lagoo monosperma and Pinus pinus.

La Algaída

1500 = 76°F

1512 - Acanthodactylus e. erythrinus adult seen in
J. phoenicea.

1515 - 3 A. e. e. juv. seen, 1 shot in C. album.

1521 - 1 A. e. e. juv. seen C. album / J. phoen. area.

1526 - A. e. e. juv. seen C. album.

1529 - A. e. e. juv. in C. album.

1542 - A. e. e. juv. seen in C. album.

06 NOV 70

1546 - a. e. e. juv. shot in C. album.1556 - a. e. e. juv. seen in C. album in
Pinus pinea ecotonal area.

1610 = 74°F

1620 - Psammochromis a. alpinus seen in J. phoenicea (ecotone area).1629 - a. e. e. juv. shot in sun vic. of C. album.1725 = 68°F. END(CMFS 19360 - 19362 = a. e. erythrum)San Lucan de Barrameda, 16 km N+W (located just outside La Algaída) at 1742 a fresh DOR Elaphe scalaris noted. 9" in length and L 100' from saline water (Irrigation = River, artificial).

07 NOV 70

Boranga, 4.1 mi N. of La Algaída

Overcast and cool.

0840 = 51°F (NO sun)

0922 = 55°F

The mosquitoes are presently unbearable and nothing was collected from 0840-0922 and neither was anything seen.

12 NOV 70

Boranga - La Algaída

0937 - 1522

0937 = 52°F

1019 = 56°F

1100 = 60°F

1107 = 60°F

1147 - 1 a. e. e. juv. shot in Coccyz album while basking in sun.1159 = a. e. e. juv. seen in open sun vic. J. phoenicea.

12 NOV 70

1213 = 66°F

1237 - A. e. e. juv. shot in Coccyz album area: sunning.1245 - A. e. e. juv. shot in C. album area1250 - A. e. e. juv. seen in C. album.1301 - A. e. e. juv. seen in C. album.1305 - A. e. e. juv. seen in C. album.1310 - A. e. e. juv. seen in C. album.1314 - A. e. e. juv. seen in C. album.1316 - A. e. e. juv. shot in C. album.1319 - A. e. e. juv. seen in C. album.

1330 = 71°F

1344 - A. e. e. juv. seen in C. album.1347 - A. e. e. juv. shot in open sand.1352 - A. e. e. juv. seen in C. album.1357 - A. e. e. juv. shot in C. album.1405 - A. e. e. juv. shot in J. phoenicea.1410 - A. e. e. juv. seen in C. album / H. helimifolium.1412 - A. e. e. juv. shot in C. album area.1414 - A. e. e. juv. seen in J. phoenicea.1420 - A. e. e. juv. shot in C. crispus / H. helimifolium.1424 - Skin of Melospiza m. mexicanus seen shed
under branch of J. phoenicea.1437 - A. e. e. juv. in open sand.1441 - A. e. e. juv. shot in H. helimifolium.

1442 = 75°F

1458 - A. e. e. juv. seen in C. album.1504 - A. e. e. adult shot in C. album.1514 - A. e. e. adult shot in J. phoenicea.

1522 = 73°F

[CMFS 19365-19367 (10) = A. e. e.]

14 NOV 70

Puerto de Santa Maria - Chidana - Vejer - Facinas - Los Barrion -
Algeciras - Tarifa - Puerto Real.

1310 - 1935, 61°F, Clear - Partly Cloudy

Facinas, 9 km NE, 1440, 63°F, on a stone bridge
one young *Sacota hispanica vaucheri* (19374-19378) seen. 10 km
NE at 1450 one adult *L. h. vaucheri* shot from culvert. 11 km
NE at 1500 and 61°F a *L. h. vaucheri* seen active in sun
on culvert. 11 km NE at a large bridge an adult *L. h. vaucheri*
shot at 1515 and 63°F under partly cloudy - sunny skies.
12 kms NE at 1517 and 63°F one *Sacota lepeida* (19379)
shot from boulder -- a well-patterned adult. At 1539 = 52°F
in shade (absence of sunlight due to cloud cover). 20 kms NE
at 58°F a *L. h. vaucheri* was taken, alive, from a rock outcropping.
21 kms NE at 62°F another *L. h. vaucheri* shot from a wall and
at 1605 and 60°F another *L. h. vaucheri* shot from boulder.

Algeciras, 17 kms S, one DOR *Bufo bufo* ssp. taken
note of. This is the first *B. h. ssp.* seen in this area between
Algeciras - Tarifa.

Vejer de la Frontera, 15 km SSE on N-340, one adult
D.O.R. *Elaphe scalaris* noted.

Puerto Real, 9 kms. E. 2 *Peleobates cultus* taken
AOR @ 1920 (19380-19381)

15 NOV 70

Jerez - Arcos - Borna - Villamartin - Algodonales - Olvera -
Setenil - Alcalá del Valle - El Gator - Algodonales - Jerez.

1030 - 1700, 56°F

Algodonales, 11 km NE, 1200-1230, talus slope, area of
L. monosperma, nothing seen. 12 km NE collected another talus
slope area of *L. monosperma* and *C. ludanifer*. *P. a. algerian*
taken here before but not today, a *M. m. monspessulanus* shed skin seen.

15 NOV 70

Olvera, 3 km E. at Sevilla Province Border, 1326
one L. h. vaucheri seen on culvert at 56°F. 6 km
SE. at 1400 and 60°F, one Lacerta lapida seen active
in Juncus acutus which was growing from side of cliff.

Setenil, 5 km NE at 1430 and 58°F 3 L. h. vaucheri
(19382-19384) shot from bridge / 1 other observed.

18 NOV 70

prey - Alcalá de los Gazules - Casas del Costiño - Los
Barrios - Torifa.

1840 - 2130

Alcalá de los Gazules, 13 km. SE. at 2017 one AOR
Pleurodela waltli (19386) [60°F] taken. 19 km SE at 2030
one AOR Discoglossus p. pictus (19388-19389) collected.

Casas del Costiño, 1 km. NW. at 2037 an AOR
Discoglossus p. pictus collected (19388-19389). 2 km SE
one AOR Hyla a. meridionalis (19387) collected. A small
Fox-like animal (solid dark tail w/ white tip) seen.

19 NOV 70

Rota - Chipiona Road

2000 - 2145, 90% R.H., 61°F, and rain.

Pelobates cultripes (19392 [12] - 19399) and Pelodytes punctatus
(19400-19403) collected this evening along this former route.

21 NOV 70

Bonanza - La Algaída

1445 = 62°F. Clear + Sunny.

1454 - P. a. algerius juvenile seen under P. pinea1504 - A. e. e. juv. shot in J. phoenicea1512 - A. e. e. juv. shot in C. album.

1520 - P. a. algerius juv. seen in P. pinea middle area
under plant resembling Genista.

1529 - P. a. algerius juv. shot under P. pinea amidst
miscellaneous unidentified plants.

21 NOV 70

1545 - A. e. e. juv. shot in unidentified plants / P. perca
 1550 = 61°F END.

Dead Elaphe scalaris found on dirt road to Bonanza --
 dead approximately 2 days.

CMFS 19407 - 19409 = A. e. erythronum

19410 = P. a. algiver

23 NOV 70

Puerto Real road to Medina Sidonia

2000 - 2200, 58°F

W.R. Maxwell & I travelled road to collect whatever was
 out and around. Nothing appeared in the 2 hour stretch.

27 NOV 70

Puerto de Santa Maria, 1.8 mi. ESE.

1215 - 1400. 67°F. Wind from NE, overcast.

One dead E. scalaris (19421), one juvenile N. maura
 (19422), and one juvenile Lacerta lepida (19423) was collected.

On the return road to Jerez de la Frontera, one adult
Natrix maura (19424) was collected W. of I to Pto Real
 and Jerez - Medina Sidonia. Tape recorder malfunction -
 loss of exact data.

29 NOV 70

Puerto Real - Alcalá de los Gazules - Casas del Castaño - Los
 Barrios - Algeciras - Tarifa - Vejer.

1800 - 2250, 54°F with Rain.

Alcalá de los Gazules, 12 km. SE the second Pleurodeles
waltli taken. (Tape recorder malfunction).

Casas del Castaño, 12 km SE, 2030, 53°F one DOR
Salamsadra s. bejarcae (19427) collected. 4 km NW one AOR
Hyla a. meridionalis seen at 2045 and 52°F. 4 km NW at
 2046 and 55°F two AOR H. a. meridionalis (19425-19426)
 collected.

Algeciras, 8 km S at 2150 and 55°F one S. s. bejarcae

29 NOV 70

(19431) collected AOR on N-340.

Tarifa, 10 km WNW one Pelobatus cultripes adult
taken AOR (19430) at 2135.

03 DEC 70

Bonsaya, La Algaída

Pistacia lentiscus area in being burned.

1245 = 58°F

1325 = 60°F

1424 - A. e. e. (juv) in Corema album.1429 - A. e. e. juv shot in C. album.1434 - P. a. algerius juv. seen in C. album

1435 = 63°F

1446 - A. e. e. juvenile seen in C. album.1505 - A. e. e. juvenile shot in C. album / f. phoenicea.

1515 = 63°F

1542-1547 = P. a. a. juveniles shot in C. album while
sunning, etc.

1553 = 62°F

1601 - A. e. e. juv. shot in C. album.1611 = 61°F ENDCMFS 19432(3) = A. e. erythrum19433 = P. a. algerius

05 DEC 70

Rota

W. R. Maxwell and I collected on the beaches from 1500-1600.
One Acanthodactylus e. erythrum (19434) was collected
about 1515 and was the only specimen seen.

10 DEC 70

Rota - Chipiona Road

1900-2030, 56°F

H. a. meridionalis (19436), P. punctatus (19437-19438), and P.

10 DEC 70

13 DEC 70

multitrip (19439-19445) collected AOR

Puerto Real - ferry de la Frontera

1500 - 1700

61°F and clear

Puerto Real, 8 km. E. at 1545 one DOR Elaphuscalaris (19446) collected