Reproduction of Acanthodactylus erythrurus (Reptilia, Lacertidae) in central Spain. A preliminary study.

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We studied 143 specimens (84 males and 59 females) from a population of <u>A. erythrurus</u> located between the townships of Torrelodones and Hoyo de Manzanares (Madrid province, cen tral Spain). Specimens were captured in successive visits to the study area during 1984 and 1985. For this study, the per tinent measures were SVL and total weight were calculated. In females, the number and diameter of the ovarian follicles and the number, length and width of the ovidutal eggs were recorded. All data were processed according to sex and corresponding 15-day period.

# **RESULTS AND DISCUSSION**

## Sexual maturity

The minimum SVL seen in a reproductive male was 65 mm, larger than reported by BONS (1969) or SEVA (1982). Minimum length for reproductive females was 62.5 mm, also larger than those obtained by BONS (1972) and SEVA (1982). We encountered males and females of this size in spring, after the second hi bernation (pers. obs.).

#### Mating: copulations

The reddish coloring of the proximal hindleg and the tail of adults females tradictionally considered a sign of mating activity (ARNOLD, 1978; SALVADOR, 1985; BARBADILLO, 1987) was not visible in some females until the second half of April and peaked in May and first half of June.

The copulation period took place from the second half of May to the last half of July.

### Sexual cycle of males

<u>A. erythrurus</u> presents seasonal sexual cycles: testicular length, width and weight attaines their maximum development

between the second half of June. Maximum epididymal weigth occurs in the first half of July. Testicles and epididymes regress im the summer months.

## Sexual cycle of females

Figure 1 illustrates the evolution of maximum ovarian foll<u>1</u> cle diameters in 1984 and 1985. We confirmed ovulation with a minimum diameter of 10.8 mm.

# Ovidutal eggs. Eggs-laying

Egg-laying took place between the first half of June and early August. The mean length and width of the ovidutal eggs was 16.2×9.7 mm. The clutches contained 2-7 eggs.

Some females can effect two egg-laying per reproductive period, the first usually in the second-third week of June and the second probably in the second half of July and early days of . August.

### Eclosions

Eclosions took place form early August to late October, after an incubation time of 65-80 days.

### REFERENCES

ARNOLD, E.N. & BURTON,J.A. (1978): <u>A field guide to the Reptiles and Amphibians of Britain and Europe</u>. Ed. Collins. 272 pp. BARBADILLO, L.J. (1987): <u>Guia de INCAFO de los Anfibios y Reptiles de la Península Ibérica, Islas Baleares y Canarias</u>. INCAFO, Madrid, 694 pp.

BONS, N. (1969): Le cycle sexuel du mâle chez <u>Acanthodactylus</u> <u>erythrurus</u> <u>lineomaculatus</u> au cours du cycle sexuel. <u>Bull. So</u>c. <u>Sci. nat. phys. Maroc, 49: 161-204</u>.

----- (1972): Variations histophysiologiques du tractus <u>ge</u> nital femelle du Lézard <u>Acanthodactylus</u> <u>erytrhurus</u> <u>lineomacu-</u> <u>latus</u> Dum. & Bibr. au cours du cycle annuel. <u>Bull. Soc. Sci</u>. nat. phys. Maroc, 52: 59-118.

SALVADOR, A. (1985): <u>Guia de Campo de los Anfibios y Reptiles</u> <u>de la Peníncula Ibérica, Islas Baleares y Canarias</u>. Santiago García Ed. León. 255 pp.

SEVA, E. (1982): Taxocenosis de Lacértidos en un arenal costero

alicantino. Publ. Univ. Alicante, 317 pp.



Fig. 1. Representation of maximum diameter of ovarian follicles in the different 15-day periods in 1984 and 1985 . females with ovidutal eggs.

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