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The food of some Lacertidae in the insular ecosystems of the Aegean.

Efstratios Valakos

University of Athens, Biological Department, Section of Ecology and Taxonomy, GR-15771 Panepistimioupolis Athens, Greece.

Three genera of the family Lacertidae are distributed in the Aegean archipelago. The genus *Podarcis* is dominant in the North and Central Aegean islands, where two species have been recorded. The species *Podarcis milensis* is endemic of the Milos islands group and the species *Podarcis erhardii* differentiates in the Aegean archipelago, where over twenty subspecies are distributed. The genus *Lacerta* consists of three species (*L. viridis*, *L. trilineata* and *L. danfordii*). *Lacerta danfordii* is the commonest species on the islands of the east Aegean. The genus *Ophisops* consists of one species, *O. elegans*.

The ecosystems of the Aegean belong to the mediterranean type (Mauromatis, 1978) and the climate of the area is wet mediterranean (Mauromatis, 1978).

In this report are given data on the food of the species *Podarcis erhardii* and *Lacerta danfordii* during the spring of 1984 and 1985.

Localities and Methods

From three islands of the Aegean 49 specimens were captured during the spring of 1984 and 1985. 30 specimens were captured from the island of Naxos (March - April - May 1984) where the subspecies *Podarcis erhardii naxensis* is distributed, 7 from the island of Astypalea (March 1984) where *P. erhardii* ssp is distributed and 12 from the island of Icaria (March 1984 and 1985) where the species *Lacerta danfordii* is distributed.

The main characteristics of the areas of the three islands are the rocky terrain and the vegetation which is phrygana with dominant species *Thymus capitatus* and *Genista acanthoclada* and dry maquis with dominant species *Juniperus phoenicia* and *Quercus coccifera*.

The body length (snout - vent), tail length and sex were recorded for each specimen. The content of the stomachs were examined in the laboratory and every food item was measured (up to 0.1 mm) and recorded. Food species diversities were calculated with Shannon (1949) information theory measure

$$H = -\sum_{i=1}^n f_i \ln f_i / n \quad \text{where } n = \text{the total number of the } i^{\text{th}}$$

food items and f_i = the number of the food items of i category. The overlap between species was calculated with

$$\text{Pianka's (1981) formula: } Q_{jk} = \frac{\sum_{i=1}^n p_{ij} \times p_{ik}}{(\sum_{i=1}^n p_{ij}^2 \times \sum_{i=1}^n p_{ik}^2)^{1/2}}$$

where p_i are the percentages of the i^{th} category of prey for the species j and k .

Table 1: The percentage of food items found in the stomachs of 12 *L.danfordii*, 30 *P.e.naxensis* and 7 *P.erhardii* ssp. Numbers in parenthesis show the number of items in each category, H' =diversities, Q_{jk} =overlap between the prey of 3 lizards.

Food category	<i>L.danfordii</i> N=12	<i>P.e.naxensis</i> N=30	<i>P.erhardii</i> ssp N=7
Gastropoda	-	7.78(13)	6.52(3)
Spiders	14.9	16.76(28)	19.56
Pseudoscorpions	-	1.79(3)	2.17(1)
Harvestmen	1.49(1)	-	-
Chilopoda	1.49(1)	-	-
Isopoda	2.98(2)	-	2.17(1)
Coleoptera	31.30(21)	36.52(61)	43.47(20)
Orthoptera	19.40(13)	11.97(20)	-
Diptera	4.47(3)	2.99(5)	-
Heteroptera	-	4.79(8)	-
Ants	1.49(1)	5.38(9)	4.34(2)
Hymenoptera	1.49(1)	2.40(4)	-
Mantidae	-	0.60(1)	-
Larvae of insects	20.89(14)	9.74(15)	21.73(10)
Total	100 (67)	100 (167)	100 (46)
H'	1.78	1.93	1.49
Q_{jk}		0.96	0.929

Table 2: The mean body length in mm (snout-vent) and the mean prey length in mm of the lizards which were examined. N=number of lizards.

Species	SV±S.E.mm	x±S.E.mm		
<i>P.e.naxensis</i> N=30	58.97±1.08	4.6±0.2	rs=0.08	P>0.05
<i>P.erhardii</i> N=7	58.50±3.20	4.19±0.6	rs=0.68	P>0.05
<i>L.danfordii</i> N=12	63.95±2.12	6.1±0.5	rs=0.3	P>0.05