

tion of *Pitymys multiplex* in what seems to be the southernmost station of its range.

Even more remarkable seems to be the total absence, in the same area, of *Pitymys savi* quite frequent however few kilometers to the south. As yet it has not been possible to find any transitional zone where the two species can ( or could ) coexist.

## RESUME

Les Auteurs referent sur les résultats preliminaires de une enquête faunistique du territoire de confin entre la Toscane et la Ligurie, près de la côte tyrrhenique. Ce travail s'insère dans un plus vaste project pour mieux connaître la distribution des espèces de Micromammiferes (Rongeurs et Insectivores) de l'Italie centro-septentrionale.

Les données viennent surtout de l'examen des rejects de l'Effraye, *Tyto alba* recoltés dans quatre stations differentes et aussi des individus capturés avec des pièges. Le résultat le plus interessant semblerait la presence dans la zone d'une population assez omogene du *Pitymys multiplex* qui aurait là l'une de stations la plus meridionale de son areal. Remarquable c'est l'absence de *Pitymys savi* qui serait au contraire assez nombreux à quelque kilometre plus à Sud. Jusqu'ici on n'a pas trouvé une "zone de transition" où les deux espèces peuvent cohabiter.

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## SEX DIFFERENCES IN THE DIET OF THE BARN OWL

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Although many studies have been carried out on the diet of the Barn Owl (e.g. EVANS & EMLLEN, 1947 - GLUE, 1974 - LOVARI et al., 1976), almost nothing is known on the sex differences of its predatory habits. On the other hand, interest is keen on this subject as differential feeding behaviour between the sexes of a raptorial species may be related to adaptive features of the predatory habits. In order to collect some relevant information I examined the stomach contents of 11 male and 13 female Barn Owls *Tyto alba alba* killed by shooters in the Siena county, Tuscany, central Italy, during the shooting season 1974 - 1975. The study area has been described previously (LOVARI, 1974). Results of the analysis are set out in Table 1. Although no statistically significant conclusion can be drawn from such a small sample of gizzards, my results may supply some preliminary material for future studies on this subject. My data would indicate that male Barn Owls feed upon a wider range of prey than females perhaps in order to provide easily enough food to their mate and themselves during the incubation period, when the female spends most of her time sitting on the eggs (NIETHAMMER, 1938 - REESE, 1972 - MAESTRELLI, 1973).

EARHART & JOHNSON (1970) have pointed out that the degree of dimorphism in body weight tends to be remarkable among the sexes of those raptors preying mainly upon vertebrates - like the Barn Owl does - whereas it is very small in birds of prey concentrating upon arthropods; intermediate dimorphism indices have been found for species that take both arthropods and vertebrates. The only species strangely deviating from such a trend are Barn Owls and Long-eared Owls *Asio otus*

which are very little dimorphic, the female being slightly bigger than the male, in spite of the fact that they feed on vertebrates, particularly the Barn Owl. The reduced dimorphism in insectivorous owls may be explained by postulating that these are subjected to little food competition, being adapted to take a narrow size range of small items, whereas owls which feed on vertebrates have a much wider range of prey sizes but usually fewer total prey number available to them. Sexual size dimorphism would be useless for the former species, but it has an adaptive value for the latter, with each sex exploiting mainly a certain size range or kind of prey (EARHART & JOHNSON, 1970).

Possibly, the versatility of the Barn Owl as a predator may have made it include into the "insectivorous owls" category, despite its strong preference for vertebrate prey.

Table I - Numbers and percentages of prey found in gizzards of 11 male and 13 female Barn Owl killed by shooters during the shooting season 1974 - 1975, from September through March.

Prey	Males		Females	
	N°	%	N°	%
Insects	-	-	3	15.8
Birds	1	3.0	1	5.3
Mammals				
<i>Crocidura leucodon</i>	2	6.1	2	10.5
<i>Crocidura suaveolens</i>	2	6.1	-	-
<i>Suncus etruscus</i>	2	6.1	-	-
<i>Sorex araneus</i>	5	15.2	-	-
<i>Sorex minutus</i>	2	6.1	-	-
<i>Apodemus sylvaticus</i>	7	21.2	5	26.3
<i>Mus musculus</i>	2	6.1	2	10.5

Table I - continued

Prey	N°	Males %	N°	Females %
<i>Muscardinus avellanarius</i>	3	9.1	-	-
<i>Clethrionomys glareolus</i>	1	3.0	3	15.8
<i>Pitymys savi</i>	6	18.2	3	15.8

SUMMARY - Data collected by Authors by examination of gizzard contents would indicate that male Barn Owls feed upon a wider range of prey than females.

RESUMÉ - L'examen que l'Auteur a conduit du contenu stomacal semblerait indiquer que l'Effraye mâle aurait un spectre de proies plus variable que la femelle.

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