

ON THE PREY OF THE COLLARED SCOPS OWL *OTUS BAKKAMOENA* (PENNANT) AT AUROVILLE, PONDICHERRY

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The food of *Otus bakkamoena* has been described as beetles, grasshoppers and other insects, lizards, mice and small birds (Ali & Ripley, 1969); large insects, lizards, mice (Ali, 1977); and beetles, other insects; occasionally mice and lizards (Ali, 1996).

This study in two different areas simply aimed to discern the prey base of the species. In depth ecological impacts - viz. prey biomass, seasonal population fluctuations, etc. were not undertaken.

Two different ravine cum re-afforested plantation areas in the Auroville bioregion constituted the study sites: 'Aspiration', about a kilometre from the seashore, entirely forested with an average tree height of 10m. (afforestation since 1977), and 'Aranya', about 12km from the seashore in the vicinity of Ousteri Lake, with an average tree height of 5m (afforestation since 1993) and the dominant vegetation being grasses - *Aristida* sp., *Paspalum* sp., *Heteropogon contortus*, etc. (Fig. 1).

Pellets were gathered in the vicinity of the habitual roosting trees of the owls - 36 in Aspiration and 54 in Aranya - from March 2001 to February 2002. Binocular microscope and established literature on insects (Heinrich, 1994; Borror, 1992; Mani, 1990) allowed an analysis of all arthropod remains; reptiles were distinguished from scales and the rodent from its characteristic skeletal features.

The percentage of particular components of the food of the owl was divided into four categories according to the frequency of occurrence (Kumar, 1985): basic food - prey species occurring with a frequency of over 20%; constant food - prey species occurring with a frequency between 5-20%; supplementary food - prey species occurring with a frequency between 1-5%; chance food - prey species occurring with a frequency below 1%.

Analysis disclosed the basic food to consist of Orthoptera and Isoptera; constant food Coleoptera (Scarabaeidae, Lucanidae, etc.); supplementary food Araneae, Hemiptera, Hymenoptera, Blattaria, Reptilia; and chance food Gastropoda, Scorpionida,

Lepidoptera (imagoes & larvae), Odonata, Diptera and Rodentia. No birds were evident among the 2,684 prey items identified in pellets.

A marked variation, especially of basic food was evident between the two areas of contrasting vegetational types - in Aranya the Orthoptera predominated (51.51% in comparison to 6.96% in Aspiration.), whereas in Aspiration the Isoptera was the primary food (70.66% compared to 8.91% in Aranya). For further details refer the Table 1.

The reason for the owl preying on different items in different areas has a direct bearing on the habitats in question - a casual perusal shows termites proliferating in old growth plantations and Orthopterans in grasslands. This opportunistic feeding habit is not confined to *Otus bakkamoena* alone; it has been commented upon in the Barn owl *Tyto alba* (Czamecky *et al.*, 1995; Herrera & Jaksic, 1980; Ruprecht, 1964, 1971, 1979), Long-eared Owl *Asio otus* (Czarnecky, 1956), and Spotted Owllet *Athene brama* (Kumar, 1985).

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Table 1. The prey of *Otus bakkamoena* in two areas of Auroville from Mar 2001 to February 2002.

Prey	Aranya			Aspiration			Summary		
	Total	%	Category	Total	%	Category	Total	%	Category
Gastropoda (Snails)	6	0.52	OF	2	0.12	OF	8	0.29	OF
Scorpionida (Scorpions)	1	0.08	OF	-	-	-	1	0.03	OF
Araneae (Spiders)	77	6.79	CF	46	2.96	SF	123	4.58	SF
Orthoptera (Grasshoppers & Crickets)	629	55.51	BF	108	6.96	CF	737	27.45	BF
Isoptera (Termites)	101	8.91	CF	1096	70.66	BF	1197	44.59	BF
Hemiptera (Bugs)	59	5.20	CF	7	0.45	OF	66	2.45	SF
Coleoptera (Beetles)	70	6.17	CF	161	10.38	CF	231	8.60	CF
Lepidoptera (Moth imagos)	7	0.61	OF	1	0.06	OF	8	0.29	OF
Larva	4	0.35	OF	7	0.45	OF	11	0.40	OF
Hymenoptera (Bees, Wasps & Ants)	79	6.97	CF	35	2.25	SF	114	4.24	SF
Odonata (Dragonflies)	11	0.97	OF	-	-	-	11	0.40	OF
Blattaria (Cockroaches)	49	4.32	SF	50	3.22	SF	99	3.68	SF
Diptera (Flies)	1	0.08	OF	9	0.58	OF	10	0.37	OF
Reptilia	38	3.35	SF	29	1.86	SF	67	2.49	SF
Rodentia (<i>Mus.sp.</i>)	1	0.08	0	-	-	-	1	0.03	OF
	1,133 *			1,551 **			2,684		

* prey items in 54 pellets; ** prey items in 36 pellets.

Categories: Basic Food - BF (>20%); Constant food - CF (5-20%); Supplementary food - SF (1-5%); Chance food - OF (<1%)

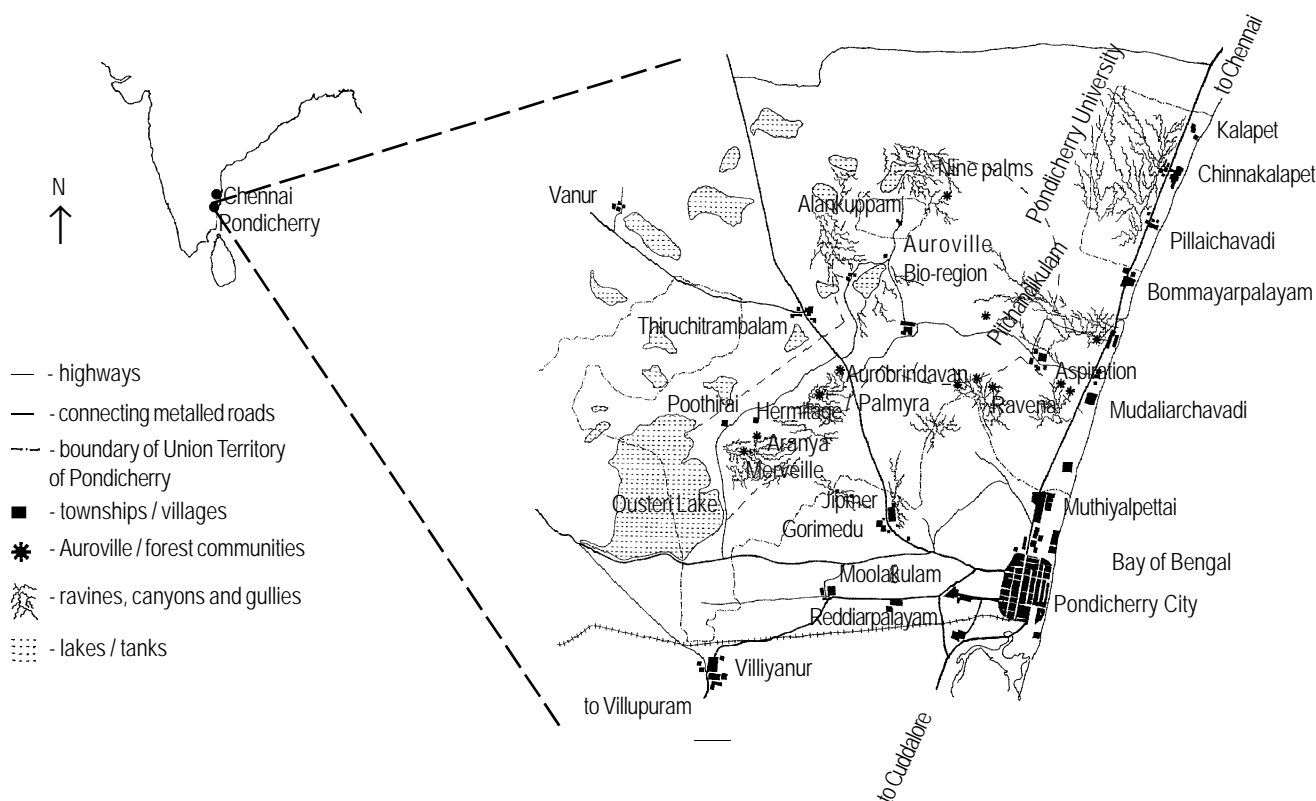


Figure 1. Map showing study sites Aranya and Aspiration