

MIST-NETS CATCH MORE JUVENILE OYSTERCATCHERS THAN ADULTS

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It is suspected that juvenile waders are more likely to be caught by mist-nets than are adults (e.g. Pienkowski & Dick 1976). The idea is hard to test because the age-structure of many populations is difficult to measure by means other than netting. However, Oystercatchers *Haematopus ostralegus* are easy to age at a distance, and assessments of the age of colour-marked individuals on the feeding grounds or at the roost agree in 93% of cases, with those made in the hand when the bird was caught (Goss-Custard *et al* 1980). Accordingly, the age structure of the population can be measured from direct counts, and this was done regularly on the Exe estuary between 1976 and 1980 (Goss-Custard *et al* 1980). Birds were also caught by mist-nets, so a comparison between the two estimates of age-structure can be made.

Oystercatchers are most numerous on the Exe outside the breeding season when up to 3,000 birds are present. Most feed within the estuary itself, but some also occur along the coast within 5 km of the mouth of the estuary and in fields. At high water during the day, most birds roost on Dawlish Warren, a sandy promontary at the mouth of the estuary. But in winter, many feed in the fields surrounding the estuary and some roost along the coast. However, at night, at all times of year, they roost on Dawlish Warren where birds were mist-netted regularly by members of the Devon & Cornwall Wader Ringing Group.

Table 1 compares the age-structure of samples of birds caught by mist-netting with the known age-structure of the whole population as determined from day-time counts made on the estuary, coast and fields. Juveniles are birds in their first-year while immatures are in their second to fifth. Where mist-netting was done on several occasions in a month, the data from all samples were combined.

It is quite clear that juveniles are more likely to be caught than adults, and are disproportionately represented in eight of the nine samples. On average, they occur three times more frequently in the mist-netted samples than in the population as a whole. Adults are under-represented in all catches, whereas immatures occur in the same proportion as they do in counts, on average.

We are not sure why young birds are more likely to be caught. They may roost more in those parts of the Warren where we put nets, although this is unlikely because we attempt to drive birds from the whole area to where the nets are set. Perhaps young birds are generally less alert or less mobile when avoiding the nets or are not warned by experience that such things can happen! Whatever the reason, our results do indicate a bias in the samples obtained by mist-netting.

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TABLE 1

The age-structure of samples of Oystercatchers mist-netted at the roost compared with the age-structure of the whole population determined from direct counts during the day.

Date	N	Mist-netting samples			Total population		
		Adult	Immature	Juvenile	Adult	Immature	Juvenile
Oct 1976	43	74	5	21	76	20	4
Nov 1976	28	57	7	36	76	12	12
Dec 1976	16	31	19	50	77	8	16
Feb 1977	27	70	11	19	74	6	19
Oct 1977	57	61	19	19	84	13	3
Feb 1978	19	58	26	16	78	16	6
Sept 1978	38	66	13	21	76	18	6
Nov 1978	52	69	12	19	78	15	7
Aug 1979	44	41	39	20	63	31	6
MEAN		59	17	25	76	15	9