Effects of number of mates on maternal care in the polyandrous Northern Jacana (Jacana spinosa)

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Female Northern Jacanas help their 1 to 4 mates defend their offspring from potential predators such as Purple Gallinules (Porphyrula martinica). This study examines how a ♀'s number of mates ('harem size') affects her contribution to the defense of individual families. Three aspects of maternal care decreased with increasing harem size: 1) the percentage of attacks that ♀♀ participated in (monandrous ♀♀ participated in 74% of attacks, biandrous ♀♀ 49%, and triandrous ♀♀ 46%); 2) the percentage of joint ♂/♀ attacks that ♀♀ initiated (monandrous ♀♀ initiated 26%, biandrous ♀♀ 10%, and triandrous ♀♀ 5%); and 3) proximity to offspring (which has a guarding function, in part). The third finding is a consequence of a correlation between harem size and ♀ territory size and partly explains the first two findings: as a result of the long, average distances between ♀♀ with large harems and their offspring, these ♀♀ are less likely than other ♀♀ to be aware of the presence of potential predators near their offspring.

# GIVING DETAILS OF AGE FOR OYSTERCATCHERS ON BTO RINGING SCHEDULES

## by Chris Mead

The EURING age codes seem ambiguous for some waders, like Oystercatchers *Haematopus ostralegus*, with distinguishable first-year and adult birds, and an amorphous group of birds probably two or three years old. The solution is the use of I (meaning Immature) as a plumage indicator, in the way that J (meaning Juvenile) is used. The proper codes, which should be used on British Trust for Ornithology ringing schedules, for Oystercatchers are given below:

| | To end of December | From 1 January |
|---|---|---|
| First-year (i.e. up to 1 year old) | 3 | 5 |
| Second year (if certain) | 5 | 7 |
| Fully adult | 6 | 8 |
| Immature | 4 I | 6 I |

Soft part characters may eventually allow the certain separation of all second and third-year birds, so that fully adult birds would be coded 8 or 10, but, as far as I know, this degree of certainty has not even been claimed by anyone. What is needed to make such determinations stick is good colour photographs of known-age birds caught through their second and third winters - pack your camera with the cannon-nets.

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(WSG ringing data forms do not allocate a space for I or J, as indicated above. This information can be entered in the 'Remarks' column, but will not at present be computerised. Eds.)

# BREEDING WADERS IN EAST GERMANY

We have heard recently from Dr. Kurt Lambert of Rostock about breeding waders in East Germany. Ten species of waders breed in East Germany (Table 1). Lapwing, Snipe, Curlew, Black-tailed Godwit and Redshank nest inland as well as on the coast, but the last three species are extremely rare inland. Most waders breed on a small number of specially protected nature reserves which are principally gull and tern colonies. There are no polders or other large marshes, so the waders nest directly among the seabirds. Only a few pairs nest on the coast outside the reserves. Breeding numbers vary greatly from year to year depending on water level and the existence of pools and muddy areas, and also in relation to the gull numbers (many gull colonies are culled to reduce their impact on breeding wader, tern and duck populations). The most important breeding reserves for waders are the islands Oie and Kirr (together 376 ha) which are in Darss Bay. These are flat and chiefly grass-covered, and protected by a warden each summer. Visiting is by permit only and these and the other 13 or so islands reserves are managed by the Central Office for Seabird Protection. Numbers of birds breeding on all the reserves are recorded each year (Table 1).

Table 1. Numbers of pairs of waders breeding on the island nature reserves in East Germany in recent years.

| Species | Pairs | Numbers in East Germany outside the reserves |
|---|---|---|
| Lapwing *Vanellus vanellus* | 200-250 | fair numbers |
| Redshank *Tringa totanus* | 180-250 | very few |
| Oystercatcher *Haematopus ostralegus* | 100-150 | very few |
| Avocet *Recurvirostra avosetta* | 80-120 | none |
| Ringed Plover *Charadrius hiaticula* | 50-100 | very few |
| Black-tailed Godwit *Limosa limosa* | 20-60 | very few |
| Ruff *Philomachus pugnax* | 30-50 | very few |
| Dunlin *Calidris alpina* | 20-30 | very few |
| Snipe *Gallinago gallinago* | 2-5 | few |
| Curlew *Numenius arquata* | 2-5 | very few |

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