

COURTSHIP FEEDING BETWEEN YELLOW-LEGGED GULL *LARUS CACHINNANS* AND HERRING GULL *L. ARGENTATUS* IN THE WESTERN MEDITERRANEAN

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Several species of large white-headed gulls, genus *Larus*, often hybridize freely where they occur sympatrically (Ingolfsson 1987, Pierotti 1987, Spear 1987, Pierotti & Annett 1993). In the Ebro Delta (Ebro Delta National Park, 40°37'N, 00°35'E, northwestern Mediterranean), Yellow-legged Gulls *L. cachinnans* (c. 2000 pairs) and Lesser Black-backed Gulls *L. fuscus* (c. 200 pairs) breed sympatrically (Bosch *et al.* 1994, Oro 1996). Although Yellow-legged and Lesser Black-backed Gulls are considered two separate species (Yésou 1991), interbreeding has not been recorded in the Ebro Delta (see Yésou 1991 for exceptional *fuscus* × *cachinnans* pairs in western France and in north and north-western Spain). Yellow-legged Gulls have recently been considered genetically split from the Herring Gull *L. argentatus* group (Wink *et al.* 1994, although see Helbig 1994).

Courtship feeding between a presumed male Yellow-legged Gull and a presumed female Herring Gull was observed on 31 March 1995 in the main breeding sub-colony of Yellow-legged Gulls. The presumed female begged food by hunched-posture and head-tossing, and by moving her bill up and down from near horizontal to near vertical. This behaviour was observed using a 20x60 spotting scope, and lasted c. 10 min. Although courtship feeding in gulls is normally associated with copulation (Salzer & Larkin 1990), no copulation was observed. The Herring Gull was also observed at the same point on 7 May and 13 June, i.e., practically throughout the breeding season of Yellow-legged Gulls. On 3 April and 27 April 1996, an adult Herring Gull was seen at the same sub-colony of Yellow-legged Gulls, although it was not possible to assess whether it was the same individual or not. Although evidence was sought to confirm reproduction (eggs or chicks), no indication of breeding was found.

Very few field marks allow a precise identification of large white-headed gulls (Gruber 1995, Garner 1997). However, features recorded during field observations (following Stegeman 1991, Mierauskas *et al.* 1991, Yésou & Dubois 1993, Gruber 1995, Garner 1997) indicated that it was an adult Herring Gull in breeding plumage, with a pure white head and bright bill colours: the upper-parts were notably paler and bluer when compared with Yellow-legged Gulls standing closeby at the same angle to the observer; the bill was yellow (but paler than that of a Yellow-legged Gull) with the typical red spot (paler than that of Yellow-legged Gull as well), red orbital ring but again paler than that of Yellow-legged Gulls, legs were pink and flesh coloured, and the tip of the tenth primary was hidden by a long ninth primary. The individual, compared to close-by Yellow-legged Gulls, was smaller in body size, even when compared with the smallest Yellow-legged Gulls around it. More difficult was to establish the race of the Herring Gull (*argentatus* or *argenteus*), although features of the Herring Gull observed seemed to correspond to an *argenteus* individual (following Golley 1993).

This is the first record of a Herring Gull during the breeding season in five years (1992–1996) of study of the Yellow-legged Gull colony (Bosch *et al.* 1994, Oro *et al.* 1995). Only three observations of a Herring Gull have been recorded before, not only at this site, but also on the whole Spanish Mediterranean coast (Ferrer *et al.* 1986, Cascales & Copete 1988). These observations were made during winter or were of immature birds. However, because of the similarity of their plumage (Golley 1993), immature Herring Gulls especially may have been overlooked within groups of Yellow-legged Gulls in wintering and moult areas. Only a few observations of *L. cachinnans* (most of them probably of the Mediterranean race *michahellis*) × *argentatus* pairs have been previously recorded in western France, the Netherlands and Britain (Yésou 1991, Yésou *et al.* 1994, Garner 1997), and even fewer were apparently successful (Garner 1997). Nothing is yet known about the possible hybridization of Yellow-legged Gulls and Herring Gulls in North America, where both species may co-occur (Wilds & Czaplak 1994).

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