

Two Winter Breeding Records for the Harris' Hawk

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At north temperate latitudes the Harris' Hawk (*Parabuteo unicinctus*) has an extended breeding season (Bent 1937, U.S. Natl. Mus. Bull. 167: 142–147). Previously published extreme laying dates are from February (Mader 1975, Living Bird 14: 59–85) to September (Radke & Klimosewski 1977, Wilson Bull. 89: 469–470). Herein we provide evidence for mid-January and late November laying dates and a late December hatching date.

On 22 March 1976 Whaley located a nest in a saguaro cactus (*Carnegiea gigantea*) near Florence Junction, Pinal County, Arizona (33°N). The nest contained two large nestlings approximately 29–33 days old (aged by comparison with photographs of known-aged birds).

On 1 January 1978 we located a Harris' Hawk nest with two small chicks and one addled egg near Navajoa, Sonora, Mexico (27°N). Three birds in adult plumage were present near the nest. The largest bird (probably the female) was observed brooding and feeding the young. Two of the adults circled and called when the nest (situated on the upper horizontal member of a high-voltage power tower) was approached and climbed. Based on size and down coloration, the chicks were approximately 1–5 days of age.

Based on a 35-day incubation period (Mader op. cit.), the Arizona eggs were set about 16 January and the Sonoran eggs about 25 November. Using a 40–45 day nestling period (Mader op. cit. and Whaley unpublished) the Sonoran young should have fledged about 12 February. These records, extending the known laying dates for this species by 3 months, complement those from other studies in documenting that the Harris' Hawk nests year round at north temperate latitudes.

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Osprey-Bald Eagle Interactions at a Common Foraging Site

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I observed interactions between Ospreys (*Pandion haliaetus*) and Bald Eagles (*Haliaeetus leucocephalus*) during the course of a study of Osprey feeding ecology in 1975 and 1976 on the upper portion of the Antigonish Harbour estuary, in northeastern Nova Scotia. Interactions between the two species have been reported elsewhere (Bent 1937, Blume 1947, Brown and Amadon 1968, Peterson 1969, Garber 1972, Levenson 1976), and Ogden (1975) discussed situations where conflict between the two species seemed to influence nest locations and nesting success. Gerrard et al. (1976) have discussed the relationship between the two species in more general terms.

The study was conducted on a 450-ha portion of the Antigonish Harbour Wildlife Management area, which consists of a *Spartina alterniflora* marsh surrounded by mud flats and shallows where the dominant vegetation was *Zostera marina*. More than 500 h of observation (15 h every 4 days) were made during each year (26 April–12 September 1975 and 16 April–14 September 1976). The observations were made from the shore in 1975 and from an elevated platform in the marsh in 1976. Binoculars and a 20–45× spotting telescope were used to observe the birds.

Ospreys from more than 10 nests distributed 3–14 km from the estuary came to forage and feed there, the main prey species being winter flounders (*Pseudopleuronectes americanus*). At least four Bald Eagle territories were occupied in Antigonish County within a 15-km radius of the estuary, but the two nearest nests, both 3 km away, were unsuccessful. Mature and immature eagles were regular visitors to the estuary where they usually fed on eels (*Anguilla rostrata*), a fish that Ospreys were never seen to catch.

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