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Author: Bierregaard, Richard O.

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LONG-DISTANCE NEST SWITCHING BY A JUVENILE OSPREY (*PANDION HALIAETUS*)

RICHARD O. BIERREGAARD[1]
Ornithology Department, Academy of Natural Science of Drexel University, 1900 Benjamin Franklin Parkway, Philadelphia, PA 19103 U.S.A.

BUTCH LOMBARDI
48 Campbell Street, Warren, RI 02885 U.S.A.

IAIN MACLEOD
Squam Lakes Natural Science Center, 23 Science Center Road, Holderness, NH 03245 U.S.A.

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On 12 August 2015, ROB and IM outfitted a post-fledging juvenile Osprey (*Pandion haliaetus*; referred to hereafter as NH-Y) with a 30-g, solar-powered GPS satellite transmitter (Model PPT-100, Microwave Telemetry, Inc., Columbia, MD) in Bridgewater, NH, U.S.A. (43°42.84′N, 71°39.36′W). We trapped NH-Y (probably a female, based on body measurements) with a noose carpet baited with fish on her nest platform, 21 d after her first flight. NH-Y was one of three young fledged from the nest. The transmitter was on a 3-d satellite duty cycle, daily collecting one GPS location at 0000 H and 13 additional locations hourly from 0600 H to 1800 H.

The day after we outfitted NH-Y with a transmitter, she left her natal area and flew south, arriving 2 d later (15 August) at Belcher Cove (41°44.16′N, 71°16.74′W), an extension of Narragansett Bay near Warren, RI. The first hourly GPS location for NH-Y that day was on a nest platform visible in a Google Earth image, 222 km from NH-Y's natal nest. The nest platform had been closely monitored by BL (25 visits between 1 April and 7 August). The two young raised in the nest fledged in late July. After the young fledged and prior to NH-Y's arrival, BL observed three young in the nest several times, indicating that at least one "adopted" young, probably from a neighboring nest, was using the nest and likely being fed by the resident adults before NH-Y arrived. Young were raised in 10 other nests within 1 km of this nest.

On 17 August, BL began observing the platform nest on a daily basis. On 18 August, NH-Y was in the nest just after sunrise, calling to be fed. An adult was perched with a fish on a power pole about 100 m from the nest. The calling continued and both birds remained on their respective perches. NH-Y then left the nest, flew to a pole next to the adult, and continued to call from there. After getting no response, NH-Y flew from her perch, just over the head of the adult, and turned toward the nest. The adult then left its perch, followed NH-Y to the nest, dropped the fish in the nest, and left. Immediately, a second young flew in and tried to claim the fish. A brief aerial skirmish ensued over the nest, with NH-Y successfully defending her meal and position in the nest (Fig. 1).

BL observed the platform nest two or three times per day on all but one day from 18–26 August, typically spending an hour during each visit to the nest. On almost every visit, NH-Y either had a fish or one was delivered to her. No other young visited the nest during these observations. During this period, NH-Y made one >3-hr excursion 11 km to the south; otherwise, all but two of 126 GPS locations were within 300 m of the adopted nest.

Beginning at 1700 H on 25 August, all GPS locations were at a pole along a high-voltage transmission line located across a narrow cove from the adopted nest, at a location where NH-Y frequently perched. Because of the consistency in the GPS locations, we suspected that NH-Y had died, and on 31 August, BL found her dead in the

Figure 1. Juvenile Osprey NH-Y defends recently delivered fish from resident juvenile. Photo by Butch Lombardi.

[1] Email address: rbierreg@gmail.com

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marsh below the power line. There were no visible signs of trauma, broken bones, electrocution burns, or predation. We suspect that NH-Y may have collided with a power line or one of the many guy wires supporting the pole where she died. No necropsy was performed.

After NH-Y's death, at 1330 H on 26 August, BL observed a young Osprey in the adopted nest. On most subsequent visits between 27 August and 8 September, BL observed one or two young in the nest, suggesting that the young from the nest had been nearby during the period NH-Y was present.

NH-Y's mid-August date of departure from her natal area was fairly typical for first dispersal. Twenty of 45 young outfitted with transmitters in New England and Long Island, New York, dispersed from their natal areas before initiating migration; their median departure date was 17 August (range: 2 August–7 September; R. Bierregaard unpubl. data).

Young Ospreys are known to visit other nests after fledging (Poole 1982). This occurs frequently enough that fledgling counts in colonial-nesting situations must be done before young begin to fly. Although juveniles react aggressively to other juveniles visiting their nest, adults usually do not appear to identify the young as intruders and will feed them (Poole 1989).

Single instances of nest-switching with subsequent adoption have occurred among White-tailed Eagles (*Haliaeetus albicilla*; T. Nygard pers. comm.), and Eurasian Sparrowhawks (*Accipiter nisus*; Wyllie 1985). The behavior has been observed more frequently in Egyptian Vultures (*Neophron percnopterus*; Donazar and Ceballos 1990), Northern Goshawks (*Accipiter gentilis*; Kenward et al. 1993), Spanish Imperial Eagles (*Aquila adalberti*; Ferrer 1993), Eurasian Eagle-Owls (*Bubo bubo*; Penteriani and Delgado 2008), Black Kites and Red Kites (*Milvus migrans* and *M. milvus*, respectively; Bustamante and Hiraldo 1990), Peregrine Falcons (*Falco peregrinus*; Anctil and Franke 2013; T. Cade, pers. comm.), and Eurasian Hobbies (*Falco subbuteo*), where 18% of breeding pairs fostered a foreign young in Alsace (northeastern France; Dronneau and Wassmer 2005). It is common enough in Lesser Kestrels (*Falco naumanni*) that Tella et al. (1997), following 133 banded nestlings in Los Monegros (northeastern Spain), were able to statistically demonstrate that there was no observable adaptive value to the behavior. Specific distances between natal and adopted nest sites were not given in all studies cited above, but, when documented with marked or radio-tagged individuals, ranged from roughly 100 m (Ospreys) to 500 m (Eurasian Eagle-Owls, Egyptian Vultures, Peregrine Falcons) to 2.5–23 km (Northern Goshawks).

Our observations represent the first documented long-distance (>100 km) nest-switching by a recently fledged raptor and the first reported case of a visiting young displacing young from that nest. These data suggest that dispersing young Ospreys may use nests (i.e., family groups) over a wide geographical region as a resource while they explore the world prior to migration.

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