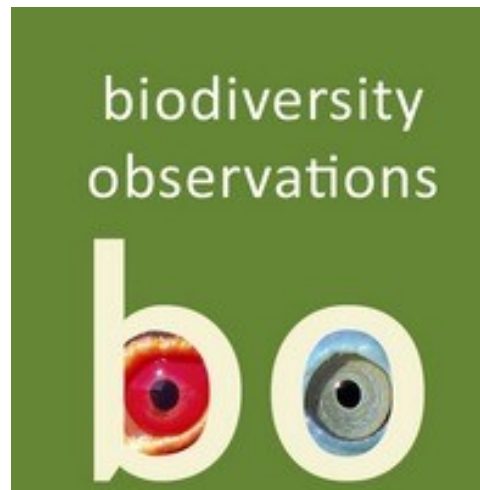


Do Ospreys *Pandion haliaetus* prey on coral reef fish?

Observation of an Osprey with an orbicular batfish *Platax orbicularis* in its talons in Watamu, Kenya

Raphaël Nussbaumer, Eric Thurania and Colin HW Jackson



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Life History

Do Ospreys *Pandion haliaetus* prey on coral reef fish? Observation of an Osprey with an orbicular batfish *Platax orbicularis* in its talons in Watamu, Kenya

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Abstract

Do Ospreys prey on coral reef fish? In short, yes. We report for the first time in scientific literature with photographic proof that Ospreys eat coral reef fish and suggest, based on regular sightings of Osprey hunting over the Watamu Marine National Park lagoon and reef, that coral reef fish form a regular part of their diet while in Kenya.

Observation

The Osprey *Pandion haliaetus* is a monotypic species found on all continents from 70° N to 40° S. With a highly restricted diet (99% fish; Poole 1989), its distribution is restricted to waterbodies, both fresh and saline. Although it is one of the most studied raptors in the world (Poole 1989), studies have mostly focused on its breeding grounds. As a result, little is known about its diet in non-breeding sites, with the exception of Senegambia (Prevost 1982), South Africa (Boshoff and Palmer 1983) and Brazil (Robson and Olmos 2002). A proper understanding of this species' diet and foraging habits at non-breeding grounds is important to ensure the survival of the species in the long-term and to understand the ecological role Ospreys play in their local environment.

Numerous fish species have been recorded as Osprey prey items, with 90 fish species recorded in their diet in the mangroves of Brazil (Robson and Olmos 2002) and 80 fish species in North America (Bierregaard et al. 2020). Yet, locally, they show a strong preference for certain species (Bierregaard et al. 2020). Although they rarely scavenge on dead fish, they have been recorded preying on a number of non-fish items (Bierregaard et al. 2020). There has not been any mention of coral reef fish in the diet of Osprey in the literature, although a photo of an Osprey holding a Caribbean Blue Tang *Acanthurus coeruleus* in Mexico was published in local newspapers (Oversteegen 2019).

On 20 February 2020, during a monthly water bird count at Mida Creek, Kenya (3.3291°S, 39.9650°E), we observed an Osprey in flight clutching an orbicular batfish *Platax orbicularis* in its talons (Fig. 1). This is the first record of an Osprey (or any raptor) preying on this species of fish to the best of our knowledge. Beyond this sighting, Ospreys are regularly observed to successfully hunt for fish over the coral reefs of Watamu Marine National Park, suggesting that the Osprey's diet does in fact include coral reef fish species on a regular basis.

The weight and size of the batfish (20–60 cm; Bouhlei, 1988) falls within the range of a typical osprey prey item, which usually represents about 10-30% of its body mass. The swimming depth of a batfish, according to the literature, is 5 to 30m below the water surface (Allen and Steene, 1979), this implies an opportunistic catch for an Osprey, which only dive to about one meter below the water surface (Bierregaard et al. 2020). However, our personal observations suggests that batfish occur at much shallower depths during low tide. More generally, the Osprey's regular presence and fishing in Watamu Marine National Park suggest that coral fish species are likely to be a regular part of their diet.

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Figure 1: Photo and close-up of an Osprey *Pandion haliaetus* with an orbicular batfish *Platax orbicularis* in its talons. Taken at Mida Creek, Kenya (3.3291°S, 39.9650°E). Copyright 2020 by Raphaël Nussbaumer.

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