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**Plunge-diving by Olivaceous Cormorants in Chile.**—Seabirds employ a variety of foraging methods, but only surface-diving has been reported for cormorants (Phalacrocoracidae) (Ashmole 1971). We report here on plunge-diving by Olivaceous Cormorants (*Phalacrocorax olivaceus*) at Chiloé, Chile.

During 12–13 November 1985, in a sheltered, sand-pebble bay at Punta Puñihuil, at the south end of Mar Brava beach, on the west coast of Chiloé Island (41°55'30"S, 74°02'W), we observed 1–5 Olivaceous Cormorants foraging in water less than 2 m in depth. Three of the birds foraged by surface-diving, but 2 flew at maximum heights of 0.5 m above the water for 5–50 m before making low, oblique plunges into or in front of breaking waves of approximately 0.25–0.5 m high or into calm water 0.5–1.0 m depth. Birds plunged head first with their wings folded against their bodies, rather than folded behind the body as in gannets *Morus* spp. (Nelson 1978). Oblique plunges had a mean duration of  $1.7 \pm 0.6$  sec [SD] (N = 20). Fish were caught during at least 2 plunges; additional fish may have been swallowed while the birds were underwater.

At the same time, Olivaceous Cormorants foraging by surface-diving in the same area remained underwater for  $15.2 \pm 4.4$  sec, N = 12, similar to dive-durations in water <2 m deep in Peru ( $12.3 \pm 4.5$  sec, N = 36) (Duffy 1983), and in Texas, (16.0 sec) (Morrison et al. 1978). We saw 2 cormorants switch from surface-diving to plunge-diving and one switch back again.

Plunge- and surface-diving were used almost interchangeably, suggesting that both were effective methods of prey capture. The Olivaceous Cormorant is one of the most wide-ranging cormorant species (Blake 1977). The very unusual use of plunge-diving by a cormorant, in addition to normal pursuit-diving, may enable the bird to exploit food not normally available to cormorants.

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**Which sex leads in paired Mallards?**—Among ducks the female is thought to determine the movements of the male during spring migration (Lincoln 1939). During courtship, drakes follow females in apparent attempts to establish and maintain pairbonds (Bellrose and Dzubin 1976), and hens lead when searching for a nest site or laying eggs (Sowls 1955). In Wilson's Phalaropes (*Phalaropus tricolor*) females commonly initiate "Paired Flights" (Howe 1975). Beecher and Beecher (1979) presented evidence that male Bank Swallows (*Riparia riparia*) follow their mates on flights from the burrow for a 7–8-day period following pair formation. They interpret these "chases" as a form of mate-guarding. I studied the relative positions of male and female Mallards (*Anas platyrhynchos*) moving between ponds by observing which sex led during takeoffs, flights, and landings.

Unmarked Mallards near Madison, Wisconsin, were studied from 12 March through 20 May 1977. Until 19 April, observations were restricted to a spring-fed pond at Nakoma Road Arboretum, which commonly held more than 40 Mallards. During mid-April, as the number of pairs decreased from at least 12 to about 7, I started to observe pairs at 4 other locations around Madison including lakes Monona, Wingra, and Mendota. Observations were made with 7 × 50 binoculars from a site 10–30 m from the shoreline. To exclude any possible influence of flights brought on by disturbance, no recordings were made during the first 5 min of each observation period. I used Lebre's (1961) characteristics for a pair on the water, as well as mutual head pumping, copulation with a male not associating with a courting party, and preening, feeding, and loafing in close proximity to distinguish paired birds. In flights, a drake and hen were considered paired when they alone approached the pond or lakeshore from a given compass direction. Thus, trios and larger groups were not included in my analysis.

Leading during takeoffs and landings was determined, respectively, by which individual's body was first to be completely out of or touching the water. In flight, the bird that was leading when a pair was first detected was deemed to be the leader. Subsequent changes in leadership were not recorded.

Females led pairs in 85% of the takeoffs (35 of 41 observations), 83% of in-flight obser-