

TABLE 1
EXTENT AND NUMBER OF FOOT AND LEG INJURIES NOTED IN A SAMPLE OF 1172 LEACH'S STORM PETRELS

Type of injury	Foot		Comments
	Left	Right	
1 toe missing	4	13	Whole or partial amputation, or small pieces missing, often some web damage.
2 toes missing	6	9	Whole or partial amputation, including web damage.
3 toes missing	1	4	Partial amputation, small portions of web remains.
Whole foot missing	3	5	Removed at joint or just distal to joint.
1 web missing	2	1	
Tarsometatarsus			
Partially missing*	5	2	Stumps of various lengths remaining.
Tarsometatarsus			
Whole missing**	1	1	Amputated at tarsometatarsal/tibiotarsal joint.
Deformed	2	1	

* One specimen where leg (left or right) not specified in notes.

** One specimen where leg (left or right) not specified in notes.

percent and is most likely caused by gulls and/or Common Puffins (*Fratercula arctica*). The latter are hole-nesters, and the petrels often start their own burrows in the entrance to puffin tunnels, perhaps to avoid having to dig through a tough, dense mat of grass roots. In some cases, encounters may occur in the burrows between the two species and might result in injuries to petrels, particularly of the type where a small piece of toe or web has been "nipped" out (Fig. 1, middle row, far right). On the other hand, various colleagues have suggested that the injuries might have been caused by fish, when the birds were resting or swimming in the sea, although I prefer the gull/puffin explanation.

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Snow Goose soaring with White Pelicans.—On 20 May 1972 at 11:00 we observed a flock of 21 soaring White Pelicans (*Pelecanus erythrorhynchos*) near the Delta Waterfowl Research Station, Delta, Manitoba. The flock was at an altitude of about 200–300 feet and moving toward the west. The day was clear and mild with little wind. As the flock passed, we noticed one bird considerably smaller than the rest, which examination with field glasses proved to be a Snow Goose (*Chen caerulescens*). As the pelicans soared and spiraled in normal flight, the Snow Goose seemed to have difficulty maintaining position within the flock. It flew at greater speeds and in larger arcs than the pelicans. As it approached the flock from the rear, it began shallow wing-beats in an attempt to

slow down. Invariably it would overtake and pass the flock, returning in a large arc to glide in from behind, only to repeat the pattern. At no time during our 10 minutes of observation did it abandon its attempt at gaining flock position. This incident took place over a week after the peak migration of Snow Geese through the Delta area. Apparently this bird was a straggler that for some reason did not continue migration with its own species.

Soaring by Snow Geese in conspecific flocks has been reported in the past. Williams (Condor, 44:76, 1942) observed 123 birds soaring near Brigham City, Utah, in October 1941. Sooter (Wilson Bull., 57:202, 1945) recorded 22 Snow Geese soaring on apparent rising air currents in February 1942 at Tulelake, California.

The incident at Delta is interesting in that the Snow Goose was attempting to emulate the typical flight pattern of a flock of another species. Evidently the pelicans produced the appropriate visual cues for the goose to identify with them. Both species are large white birds with black primaries. Perhaps the pelicans provided a supernormal releaser (Eibesfeldt. Ethology: The biology of behavior. Holt, Rinehard Winston, New York, 1970) to the Snow Goose, which would explain its persistence in attempting to fly with them in spite of apparent difficulties. One of us (B.D.J.B.) has frequently observed lone Snow Geese in association with flocks of Canada Geese (*Branta canadensis*). Since the Snow Goose is a polymorphic species with both a white and a dark (Blue Goose) phase, it would appear that the possible releaser stimulus for the species may be various large dark or white goose-like birds.—PATRICK J. CALDWELL AND BRUCE D. J. BATT, *Delta Waterfowl Research Station, Delta, Manitoba, Canada. RIN 3A1. Accepted 2 November 1973.*

A study of Mottled Duck broods in the Merritt Island National Wildlife Refuge.—This study, conducted in the Titusville, Florida area in the summer of 1967, was designed to investigate various aspects of brood survival and biology in the Florida race of the Mottled Duck (*Anas fulvigula fulvigula*).

Study Area.—The main study area consisted of spoil islands located in the Indian River and of mosquito control impoundments bordering the western shore of Merritt Island. The Indian River is a shallow estuary separating the island from the mainland; tides other than wind-caused are negligible. The mosquito control impoundments are bordered by a series of low dikes. Water levels fluctuate greatly, and the ponds commonly go dry during drought, as during the spring of 1967. At other times water may reach a depth of 3 feet or more, with rainfall the main source of water.

Vegetation within the mosquito control impoundments varies greatly. Saltgrass (*Distichlis spicata*) is common in all impoundments, and sawgrass (*Cladium jamaicensis*) is locally abundant. Other plants that are quite common include: red mangrove (*Rhizophora mangle*), black mangrove (*Avicennia nitida*), leatherleaf fern (*Acrostichum* spp.), cattail (*Typha domingensis*), sedges (*Cyperus* spp.), spikerushes (*Eleocharis* spp.), water hemp (*Acnida cuspidata*), hyssop (*Bacopa menneria*) and rushes (*Juncus* spp.).

Hatching.—Between 15 June 1967 and 5 September 1967, eight Mottled Duck nests were found on the spoil islands. Four clutches hatched, while two were abandoned and two were destroyed by predators. The time elapsing between the hatching of the first and the last young in a nest was found to be less than four hours. Females with their broods remained at the nest for eight to 15 hours after the first young hatched.

Movements of broods.—On the Indian River spoil islands, the movements of only two females with broods could be determined. In both cases, the females led their broods