Swan is "sometimes seen out of captivity on lowland bodies of water in company of wild waterfowl." The bird we saw was alone.

In its native Australia the Black Swan is most abundant in fresh water, but at times it is common on salt water, particularly in lagoons and on tidal flats. It generally avoids open, rough water, moving as the wind changes to feed in the lee of a bank or point (Mathews, The Birds of Australia, 4, pt. 1, 1914–1915:12–22, pl. 200). The habitat where the bird reported here was observed therefore seems unusual. Inquiry at the San Diego Zoological Garden and from a local bird fancier who keeps Black Swans has failed to indicate that any birds of this species have been lost recently.—JAMES R. STEWART, *Scripps Institution of Oceanography, University of California, La Jolla, California, June 13, 1957.*

Pigeon Wing-beats Synchronized with Breathing.—Moving pictures of a pigeon (*Columba livia*) in flight reveals that it inhales on the upstroke of the wings and exhales on the downstroke. The analysis of breathing was aided by fastening a rubber balloon over the bill and external nares of the bird, leaving a small area at the rear of the mouth uncovered for an air passage. As the bird breathed, the balloon collapsed and expanded. The balloon was left in place for over an hour, and the bird showed no signs of distress. The bird was an adult homing pigeon flying free except for a long light line secured to a light harness which did not apparently interfere with normal flight. The tether kept the pigeon within range of a 16mm. camera. Thirteen complete wing-beat cycles at 48 frames per second were carefully analyzed with the results stated above, and six more cycles at 32 frames per second agreed with these results, although they were not as complete. The pigeon was photographed in short flights of about 30 feet. The method works very well and should be adaptable to other types of birds under different conditions.

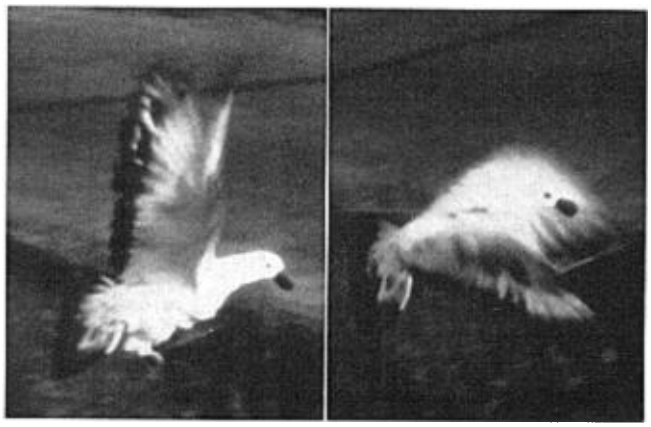

Fig. 1. Flying pigeon with balloon on bill. Left, upstroke, showing collapsed balloon. Right, start of upstroke with balloon inflated.

The figure shows on the left a pigeon near the end of an upstroke with the balloon collapsed and, on the right, the start of an upstroke with the balloon still expanded from the preceding downstroke. The inhalation begins at this position. These illustrations are copied from 16mm. Kodachrome film. A red balloon was used. The collapsed state of the balloon could be readily detected on the film by shadows along the sides of the open mouth. Unfortunately these shadows do not show in these reproductions. It is suggested that white or yellow balloons be used for better photographic recording in future tests.—JACK T. TOMLINSON, *San Francisco State College, California,* and ROBERT S. MCKINNON, *Oakland Junior College, Oakland, California, July 1, 1957.*

A Western Representative of the Rufous-sided Towhee Collected in New Jersey.—On December 23, 1952, while on the Raritan Estuary Christmas Census, Mr. George L. Daniels and I were canvassing a swamp located near Metuchen, Middlesex County, New Jersey. In the process of counting the various birds present, my attention was drawn to an unusual towhee which hopped out

of a nearby brush pile. The next day at dawn I was again at the scene and was able to collect the bird. The specimen, a female, was examined by H. C. Oberholser and Allan J. Duvall and identified as *Pipilo erythrophthalmus montanus*. It appears that this is the first record of this subspecies east of the Mississippi River. The bird was given to the Fish and Wildlife Service and is now no. 421001 in that collection.—JAMES BAIRD, *Norman Bird Sanctuary, Middletown, Rhode Island, June 9, 1957.*

Pale Ouzel Nesting in Korea.—On May 25, 1957, in a grove of small cryptomeria trees approximately five miles north of the city of Pusan, Kyongsang Namdo, Korea, a female Pale Ouzel (*Turdus pallidus*) flushed from a nest in a tree directly over my head. The grove was located on artificially terraced, reforested mountain slopes surrounding a reservoir. The elevation was estimated as approximately 800 feet. The slope was grassy and swampy, and most of the trees ranged from 25 to 30 feet in height and were about six inches in diameter.

The nest was located on a small, heavily-foliaged, horizontal branch close to the trunk of the cryptomeria tree, approximately 15 feet above the ground. It was constructed of coarse dry grass and mud. The cup was lined with rootlets, dry green moss, and several dry, partly decomposed deciduous leaves. The nest measured in outside diameter 12.5×13.0 cm. and was 7.5 cm. in overall height. The inside diameter was 7×8 cm. across the top and was 5 cm. in depth. The nest contained four young with eyes still closed, probably two to three days of age.

The female flushed with considerable wing noise, flew to another cryptomeria about ten feet distant, and voiced apparent concern at my presence with frequent sharp "scolding" notes of a typical thrush-like quality. As I backed away to collect the bird, it followed me at a distance of 10 to 15 feet. The skin was deposited in the Museum of Vertebrate Zoology.

The adult male was neither seen nor heard during the 45-minute period I spent in the vicinity of the nest. As far as I am able to ascertain, this is the first nesting record of this species in Korea.—CHESTER M. FENNELL, *Seoul, Korea, July 16, 1957.*

Another Record of the Shearwater Puffinus puffinus newelli.—Richardson (Auk, 72, 1955:412) recorded a recently dead example of *Puffinus puffinus newelli* which flew into the room of a building on the Island of Oahu and survived for a short time at the Honolulu Zoo. According to Murphy (Amer. Mus. Novit., no. 1586, 1952:11), there were seven previous records of this race of the Manx Shearwater, but only two specimens had been preserved. The specimen recorded by Richardson apparently, therefore, represented an eighth record and a third specimen.

A ninth record and a fourth specimen seem worth noting. An adult male shearwater of this form was found at Koloa, Kauai Island, on October 8, 1956, and died shortly after arrival at the Honolulu Zoo. The specimen was made up by George C. Munro and presented to the Yale Peabody Museum. A few notes on color by Mr. Munro may be worth recording: "iris, bright reddish brown; bill black, lower part of mandible lighter, with a bluish tinge; legs a fleshy bluish gray color" with the exception of the following parts which were black: outer toe, part way up outer part of leg, outer part of second toe, and claws. In addition, Mr. Munro notes that the sternum measured three and one-half inches in length and that the bird was fully mature, very fat, and seemed if anything rather old; the testes were very small.

In this specimen the under tail coverts are entirely white, the sides of the lower neck and breast are blackish, and the area immediately below the eyes is neatly banded with alternate black and white feathers that give a mottled effect. The specimen measures: wing (worn) 224 mm., tail (worn) 85, culmen 33.5, and tarsus 47.5.—S. DILLON RIPLEY, *Peabody Museum, Yale University, New Haven, Connecticut, June 11, 1957.*