

appearance of their oral cavity and it turns pink. Crop mycosis causes the development of a white mucous membrane which also gives the oral cavity a pinkish appearance. Thus, when the bird is less than five weeks old the malady is readily observed. However, when the birds are older it is more difficult to detect. The stimulation of food, or potential food, with the normal healthy bird causes the pink to dissipate and a bright red appearance to the cavity again develops. A Pavlov-type response is indicated because the introduction of an empty spoon into the oral cavity as the young bird gapes for food, brings on the development of the red color. The bright red color does not develop when affected birds feed. Often in 24 hours and definitely within 48 hours the fungus develops to such an extent that the bird has difficulty swallowing and the bird may rotate its head and appear to gape for breath.

The symptoms for the disorder are not unlike some of those for "gape-worm" (*Capillariasis contorta*) which has been found to be the causative factor in the death of many Jays in this area (Helmboldt, C. S., R. P. Eckerlin, L. R. Penner and D. S. Wyand. 1971. *The Pathology of Capillariasis in the Blue Jay. J. Wildl. Diseases* 7: 157-161). Birds which have gape-worm also develop the oral and physical symptoms described; however, the worms can usually be found beneath or surrounding the tongue and in the oral cavity.

Observations have indicated that as fledging birds become more aggressive and inquisitive they become susceptible. That is the period when they start pecking at the lettering on newspapers or boxes, the edge of the nest box or corners, and other items associated with hand-raising them. Despite concerted efforts to maintain cleanliness, when they commence flying in a confined area, it is impossible to prevent their pecking on various types of debris which includes dried fecal remains. Presumably, that is the primary source or origin of infection.

Numerous birds have been lost in the last several years because they have become infected with a crop mycosis. Many unsuccessful attempts to cure it were made at various times. Drenches included diluted tincture of gentian violet and iodine, flushing with magnesium sulfate and, out of desperation, twice hourly feedings of sucrose and milk. The greatest temporary success was obtained with the latter treatment but none of the birds recovered fully.

When the symptoms appeared in two birds from a family of five in the spring of 1970, one of them was given a diluted drench (half-strength) of milk of magnesia. The treated bird fed more at the following feedings and by the next morning had improved. The dosage was reduced to a quarter-strength solution on the second day and after treatment on the third day, the bird recovered fully. The untreated bird died within 36 hours.

In the spring of 1971, three birds from one family and two from another developed symptoms of crop mycosis. Two of the first family and one from the second were given the milk of magnesia treatment. The treated birds made a complete recovery but the untreated birds died within 48 hours. Since that time four birds from three families developed symptoms and were similarly treated with milk of magnesia. All of them made a complete recovery.

Perhaps a more exacting test relative to the value of milk of magnesia as a cure could have been conducted. For example, isolate the organism(s), infect healthy birds, await development of the symptoms and treat them. Our population has not been that abundant and our results are being reported to encourage further study to any who might be interested.—Lloyd A. Mitterling, Associate Professor of Pomology, University of Connecticut, Storrs, Connecticut.

Roseate Tern breeds during its second year.—Harlow (*Bird-Banding* 42, (1) 1971) reports a three year old Roseate Tern (*Sterna dougallii*) breeding in Massachusetts. On 3 August 1971, I trapped a two-year-old Roseate Tern (1003-37353) on a nest with a single one-day-old chick on Great Gull Island, N. Y. (411-0720). This tern had been banded as a nestling on Great Gull Island by Helen Hays, 3 July, 1969.

The two-year-old Roseate was in full breeding plumage; it had a complete black cap, long outer tail feathers, no dark shoulder patches, and red on the bill measuring 17mm. along the side of the upper mandible from the base of the feathers. The other bird trapped on the nest had not been previously banded, but was also in breeding plumage.—Grace Donaldson, Department of Education, American Museum of Natural History, New York, N. Y. 10024.