reported for several regions (see references in Orians and Willson, *op. cit.*) and probably reinforces the tendency toward separation of activity centers.

Miscellaneous.—Interactions of other species nesting in the marsh were observed occasionally; I will mention these but briefly, since the value of isolated observations of aggressive behavior is small. Occasionally Song Sparrows and marsh wrens held adjacent territories in wet meadowland beside the Concord marsh. Foraging areas tended to be quite separate and male Song Sparrows were sometimes aggressive toward trespassing marsh wrens.

Two Yellow Warbler (*Dendroica petechia*) nests were located in the Concord marsh; one was in a thick stand of marsh grass, the other on a weedy tussock. The adults foraged mostly on shore and were seldom encountered by other marsh-nesters. Another pair of Yellow Warblers nested on shore but sometimes foraged on the marsh; the Swamp Sparrow on whose territory they trespassed usually chased them away.

Yellowthroats (*Geothlypis trichas*) sang frequently from the bushes at the marsh edge and the small trees in a wet meadow near the marsh, and occasionally they flitted a short distance out into the marsh to forage. A Swamp Sparrow pursued a neighboring Yellowthroat in a vigorous and extended chase in a wet meadow with scattered shrubs.—Mary F. Willson, *Department of Zoology, Vivarium Building, University of Illinois, Champaign, Illinois.*

Aggressive behavior by a migrating Cape May Warbler.—During periods of adverse weather or winds, many migrants are forced to land on the Dry Tortugas, a group of small islands located in the Gulf of Mexico approximately 70 miles west of Key West, Florida. Most of them move on as soon as weather conditions permit. However, because of depleted energy reserves many are forced to remain and search for food and water, both scarce commodities on these dry sandy keys. Birds may be seen feeding on the well-mowed lawns about Fort Jefferson and among the windrows of rotting turtle grass (*Thalassia testudinum*) drifted along the tide lines. Many fall prey to avian predators (see R. Cunningham, *Auk*, 82: 502–503, 1965) or die of starvation.

On 8 May 1965, on Garden Key, I observed a male Cape May Warbler (*Dendroica tigrina*) chasing other birds away from the flowering stalk of a century plant (*Agave* sp.) which was growing close to the outer wall of Fort Jefferson. The flowering portions of the stalk were at the level of the second floor casemates of the fort, at least 30 feet above ground level. The Cape May Warbler, presumably the same male each time, was seen chasing individuals of both sexes of its own species as well as Blackpoll Warblers (*Dendroica striata*), Myrtle Warblers (*D. coronata*), Black-throated Blue Warblers (*D. caerulescens*), Palm Warblers (*D. palmarum*), Yellow-throats (*Geothlypis trichas*), and Redstarts (*Setophaga ruticilla*) during brief periods of observation several times daily over a three-day period. Glen E. Woolfenden, Ruth Rogers, Doris Mager, and Sievert A. Rohwer also witnessed this activity. Aggressive behavior by the male Cape May Warbler was restricted to birds that flew into the upper portions of the flower stalk. He did not attack any birds that were on the leaves growing from the base of the plant, on the ground, or in two large Australian pines (*Casuarina equisetifolia*) standing a few feet away. After 11 May and until our departure on 13 May the male was not seen again and no further defense of the stalk by any bird was observed, although birds continued to frequent the flowers.

It was observed that birds visiting the flowers were drinking water, or nectar, from the thickly bunched corollas. Except for water occasionally provided by humans, or during rainstorms or by dew formation, fresh water is practically non-existent in the Dry Tortugas. Woolfenden also noted that birds were gleaning insects from the flowers. Woolfenden (*Auk,* 79: 713–714, 1962) described the territorial behavior of a wintering Myrtle Warbler at Gainesville, Florida, during an intense cold spell which lasted several days, and suggested that this behavior was elicited by scarcity of food. Margaret Hundley (pers. comm.) has noted several instances of aggressive behavior by male Cape May Warblers during their northward migration in Florida. Whether a definite site was being defended was not known. In the present case I think that a scarcity of water or food, or both, was responsible for the aggressive behavior of the bird. These instances of territorial defense outside the breeding season suggest that avian behavior is not so rigidly stereotyped that birds cannot readily change their "normal" behavior patterns to respond to certain environmental exigencies.

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Notes on hatching and growth of the Southern Lapwing in Chile.—Southern Lapwings (*Belanopterus chilensis*) in Chile usually begin mating in July (mid-winter) in open and plowed fields. Four eggs are laid and both sexes share in the incubation. In the Vanellinae, the incubation period varies from 20 to 30 days depending, in part, on the size of the bird (O. L. Austin, Jr., *Birds of the world,* New York, Golden Press, 1961; see p. 119). The Lapwing, *Vanellus vanellus,* of Eurasia, which is similar in size to the Southern Lapwing, needs 24 days for hatching its eggs (E. T. Gilliard, *Living birds of the world,* New York, Doubleday & Co., 1958; see p. 161). So far as we know, there are no published records of the duration of incubation of the Southern Lapwing.

On 2 October 1961, four eggs of the Southern Lapwing were taken from a nest found in an open field 3.5 miles south of Angol, Malleco Province, Chile, at 250 feet elevation. The eggs were hatched in an incubator made of a closed cardboard box ($4 \times 4 \times 10$ inches) with a 60-watt light bulb for warmth. The temperature inside the box varied between 34°C and 46°C.

We do not know whether the eggs had been incubated prior to 2 October, but 26 days after being placed in the incubator, two of the four eggs hatched. The other two eggs had failed to develop. The baby birds were heard peeping four days prior to hatching. The birds emerged from the eggs 30 and 70 minutes after the onset of pipping. One newly-hatched bird weighed 20.5 g; the egg before hatching weighed 25.5 g. After two days the birds weighed 18.5 and 17.5 g; and after four days, 15.0 and 12.7 g, respectively. Neither chick was seen to take food or water during this time and repeated efforts to elicit a feeding response failed. Both died on the fourth day.

Lapwings are thought to be exclusively insectivorous, eating worms, beetles, and other animals harmful to agriculture (J. D. Goodall, A. W. Johnson, and R. A. Philippi B., *Las aves de Chile,* vol. 2; Buenos Aires, Platt Establecimientos Gráficos S. A., 1946; see p. 204). A lapwing, taken in the same area on 28 November 1961,