



On May ninth an unprecedented flight of phalaropes, largely the red species with some northern among them, descended in the waters of southeastern New England. They were reported from Cape Cod, Nantucket, Martha's Vineyard, Block Island, and off shore waters. Elise Dickerson wrote excitedly about seeing some two thousand off Block Island. This reviewer saw four hundred in a brackish pond on the Vineyard and lesser numbers elsewhere. Richard Pough, who fortuitously was on the island at the time, claimed it was a hitherto unheard of event.

This phenomenon sent the reviewer to all the literature on phalaropes she could locate, and to re-acquaintance with a book called "Sea Birds" written by James Fisher and R. M. Lockley, neither of whom should need any introduction to banders. It was first published in this country in 1954 by Houghton Mifflin Company, and though fifteen years have passed, it is still authentic.

The publisher's note states that "The North Atlantic, busiest ocean in the world, is revealed in the opening chapters not as a monotonous watery plain, but as an intricately varied, densely inhabited foraging ground for sea-birds...Chief among the authors' interests has been the study of sea-bird numbers. They were largely responsible for organizing the surveys of that splendid and typical North American animal, the gannet, which provided biology with the first reasonably accurate figure for the world population of any single and fairly numerous bird species." Every paragraph of subject matter is so fascinating that the reviewer would like to quote page after page.

The first chapter deals with the North Atlantic Ocean: its structure and its sea-birds. The second considers evolution. The third treats of sea-birds' numbers as related to man or vice versa. Because of human activities there was an epidemic of psittacosis among the fulmars of Iceland. Sea-birds can be used for food if a calculated harvest is taken, leaving a strong adult population. Eggs can be taken from species that will leave replacements. Some dumping at sea by man is benign, such as edible refuse. Malignant dumping is chiefly oil wastes.

Apart from man, the only really serious predator of sea-birds is the rat. As an example, there were probably a quarter of a million puffins on Ailsa Craig in Scotland in the 1860's. In 1889 rats got ashore from

a wreck. By 1947 there were only thirty puffins on the island.

Occasionally fish have been known to prey upon sea-birds. Several examples are given, reminding us of the recent discovery of a herring gull banded by Grace Meleney found in the stomach of a goosefish.

Cataclysms of nature can affect or prevent breeding. It is claimed that temperatures and sunshine play a more important part in timing the breeding cycle than the length of daylight. In very late springs when the Arctic ice does not break up, sea-birds cannot find food within operational range of their breeding colonies. This observation leads to the conclusion "that sea-bird numbers, like all animal numbers, depend primarily on food...the conclusion which common sense has already indicated!"

Following the chapter entitled "What Controls the Numbers of Sea-birds?" comes a chapter on "Sea-bird Movements." Here was found a consideration of phalaropes, "perhaps the most interesting and specialized of all the secondary sea-birds...the only waders that spend part of their lives as true sea-birds...The winter quarters of the two sea-phalaropes have until recently been little known, and they are still somewhat mysterious...On the west side of the Atlantic the situation seems really mysterious...Flocks of a thousand or more are occasionally seen off the Massachusetts coast." (Notice that they are seen off the coast, not from it.) "But further south the phalaropes disappear into limbo; both species are recorded as far as Florida, and there are a few records of both on or near the north shore of the Gulf of Mexico. From the entire West Indies and the Caribbean Sea there is not one record of either species of phalarope. Do the West Atlantic phalaropes mainly winter off the New England coast? Probably not. Do they straggle farther south? Or do they cross to West Mexico and pursue their way to western South America? Or what?"

There are chapters devoted to the following: First the tubenoses, a group including true albatrosses, petrels, shearwaters, and fulmars. Another chapter called "Pelicans" includes besides pelicans, cormorants, frigate- and tropic-birds, gannets, and boobies. Skuas have a short chapter to themselves in which it is stated: "Although gull-like in appearance and habits, skuas are far more oceanic than gulls, travelling considerable distances on migration and remaining at sea throughout the winter, never or rarely roosting on land at that season." A chapter on "The Auks" includes guillemots and puffins.

Those among the banding fraternity who may operate seasonally along the coast will be particularly interested in the chapter on gulls and another on terns and skimmers. It is rather surprising to note that the authors make the same remark as did Tinbergen about the habit of herring gulls in opening shellfish by dropping it from a height "on rock and sand

indifferently, apparently unable to appreciate the greater effectiveness of the rock compared with sand for crushing the shell." Hoever, there follows this statement: "It is recorded that a highway bridge in New Jersey, U. S. A., was littered with the remains of clams dropped by herring gulls, which in this instance seemed to have discovered that the road there formed a more suitable surface for the purpose than the nearby shore." Surely anyone who has observed the habits of herring gulls on the east coast of our country will claim that they are notorious for dropping shellfish on paved roads and other hard surfaces. This apparent difference between the habits of American and European gulls seems worthy of more detailed comment.

The authors claim that "of all sea-birds, terns are the most unpredictable in their social breeding habits. The numbers of occupied nest sites, even at ancient and traditional colonies, fluctuate very much more than the numbers at traditional colonies of other sea-birds....Sometimes a very large colony with some thousands of nests may desert in mid-season; sometimes it may establish its headquarters some miles away from the place where it did so in the previous season." In many cases such changes are not due to human predation and disturbance, "but some of them may be due to fluctuation in food supplies, others to weather....Terns appear to be very sensitive to changes in the environment; more so than any other family of sea-birds."

The chapter on "Social and Sexual Behavior" is all so quotable that is must be omitted in this short survey. In fact, each chapter is solid meat, and describes the lives of sea-birds in a manner that would be fascinating even to one who had never seen such a creature. This survey might close with a quotation from the chapter on "Navigation by Sea-birds."

"Although without mechanical aids, they (sea-birds) find their way by learning the chart; by knowing the time (it is becoming clear that most birds have an accurate time sense); by dead reckoning, probably in terms of flying-time rather than distance covered; by observing the sun and stars and their position in relation to the horizon. They may exploit other signs, such as the set of the currents, temperatures, and the presence of animals of their own or other kinds. We know that birds can make the mistakes that human navigators make, such as getting adrift and wrecked. And we know that they can, by instinctive orientation and navigation, without instruments, do things that humans cannot do.

"That is the present state of our knowledge." In the ensuing fifteen years we haven't learned much more.

There couldn't be a better companion for your vacation days.

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