

POPSQUASH--THE CROWDED ISLAND

By Bruce Adams

About half a mile from the Vermont shore in St. Alban's Bay, Lake Champlain, lies Popsquash Island (also called "Popasquash"). The island is shaped like a giant round cake, and resembles one at a distance, with the conspicuous white "frosting" clearly showing that it is populated by many nesting birds. The steep sides are about 25 feet high, and the top surface is about one acre in area.



Popsquash Island is occupied during the nesting season by two species-- Common Terns and Ring-billed Gulls. What makes it a particularly interesting breeding colony is the change in population balance which has taken place in the past few years. Since 1957, the Ring-billed Gulls have increased in numbers and apparently pushed out most of the Terns. Exactly what has caused the change in population is a matter of speculation.

The banding records of the late Normand St. Jacques show that in 1957 he banded 220 Terns and no Gulls. He did not visit the island in 1958, and to my knowledge no one else banded there that year. On July 19, 1959, he and I visited Popsquash and banded only one Tern. The low number was due to the late date of the visit, and we had no way of knowing if there were any Gulls that year, or how many. We believe Terns were numerous that year, but there was only one fledgling who could not yet fly.

In June of 1960, I banded 71 Terns and 26 Ring-billed Gulls. The following year, a definite change had taken place, and I banded 88 Ring-bills and 28 Terns. In 1962 the total was 59 Gulls and 34 Terns with a noticeable reduction in unhatched Tern eggs. In 1963 I banded 176 Gulls. There was one Tern chick large enough to be banded, two which were too small, ten unhatched Tern eggs, and about ten destroyed Tern eggs.

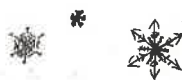
The size of the island probably plays an important role in the population change. The available nesting area is extremely small, and nests of both species are crowded very close together. The Terns have always nested in a very flat, grassy area on the southern tip of the island. The Gulls will take any area available, and with their increase in numbers, they have slowly closed in on the Terns' area.

Also in the Gulls' favor is the fact that they begin nesting earlier--during the first two weeks in May. By the time the Terns start there is apparently little room left.

But perhaps the most significant reason for the population change at Popsquash is a similar population change taking place about 40 miles south, at the Four Brothers Islands on the New York side of the lake. Of the four islands in this group, the largest has a colony of several hundred Ring-bills and about 100 Herring Gulls; a second island has Black-crowned Night Herons and Herring Gulls; and the remaining two have only Herring Gulls. On the largest island, the Ring-bill nests are densely packed together in a field of about four acres, with the Herring Gulls scattered about the island. Normand St. Jacques' banding records, up to 1961, show a decline in numbers of Ring-billed Gulls over a four-year period with an increase in Herring Gulls on the largest, or "Ring-bill," island. If the Herring Gulls are crowding out the Ring-bills at the Four Brothers Islands, it is reasonable to assume that some of the Ring-bills may be moving up to Popsquash where they in turn are evicting the Terns.

In any event, the breeding colonies on Lake Champlain present an interesting study in breeding ecology, and further banding will undoubtedly shed new light on the population dispersal. But regardless of its occupants, tiny Popsquash will certainly always be a crowded island.

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The American Museum of Natural History is offering a summer fellowship in ornithology at its Kalbfleisch Field Research Station in Huntington, Long Island. Applications must be filed not later than March 1, 1964, and will be accepted from students who are enrolled as undergraduate science majors at any college or university and from high school seniors who have been accepted for 1964 enrollment in college. The Fellow will spend a minimum of 10 weeks in residence and will receive a \$600 stipend plus room and board. Projects include censusing breeding birds, netting and banding, developing sexing and aging criteria, sound recording, playback, and analysis, etc. For details and application form, write to Dr. Wesley E. Lanyon, The American Museum of Natural History, New York 24, N.Y.