

BUTTERFLIES ON KENT ISLAND, NEW BRUNSWICK

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During the summer of 1964 (June 29 to September 4), while engaged in research studies on birds, the author took notes on butterflies observed on Kent Island. This 200-acre island, site of the Bowdoin Scientific Station, is the largest of three islands, located about six miles southeast of Seal Cove, Grand Manan, New Brunswick, Canada. The northern and western parts of Kent Island are characteristic Canadian Zone Forest, with balsam fir (*Abies balsamea*) and black spruce (*Picea mariana*) the most common species of trees. American mountain-ash (*Sorbus americana*) and birch (*Betula*) are also present as smaller trees (Gleason, 1937). The central part of the island is mainly open fields of grasses such as timothy grass (*Phleum pratense*), red-top (*Agrostis alba*), brown bent grass (*Agrostis borealis*), and blue-joint grass (*Calamagrostis canadensis*) (Potter, 1937). Most butterflies were observed in the open fields or along pathways in the woods; very few were actually seen in the densely wooded sections of the island.

The butterfly fauna of Kent Island differs from nearby mainland faunas in that relatively few species are present. Over 95 species of butterflies have been recorded in nearby Maine (Brower and Payne, 1956) but on Kent Island, during the summer of 1964, only 11 species were recorded; not a single skipper was either seen or collected. The remoteness of the island, situated as it is at the mouth of the Bay of Fundy, probably limits the number of species found on the island. Even though few species are present, at certain times of the summer, especially when Canada thistles (*Cirsium arvense*) bloom, fair concentrations of butterflies may be seen. Collecting was carried out on only one day (August 28, 1964); it is very probable that more species would be recorded if intensive collecting were carried out on the island.

Many more butterflies were seen in August than in July; the contrast between weather conditions of July and August may have been a contributing factor. In July, the only days free of *dense* fog were 17, 20, 23, 24, 25, 26, 30, and 31; in August there was little fog except for a spell of three or four days at the end of the month.

The following list consists of all butterflies seen or collected during the summer of 1964; dates and other pertinent data are also included.

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Most species found on Kent have also been recorded in southern Maine (Gobeil, 1962) and all 11 species have been recorded in Maine (Brower and Payne, 1956). The names of the butterflies follow the dos Passos list, while those of the plants follow Gray's *Manual of Botany* (eighth edition).

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Papilio polyxenes asterius Stoll

One seen near the edge of the woods on July 3.

Colias eurytheme Boisduval

One observed on July 15.

Colias philodice Godart

Seen regularly from July 30 (1) until September 4; two were collected on August 28.

Pieris rapae (Linnaeus)

Five sightings July 5 to August 20; all were for single individuals.

Danaus plexippus (Linnaeus)

The monarch was very common, especially in late summer. First observed on July 22 (2); from this date on, three or four seen regularly on most sunny days. Two caught in mist nets used for banding birds on July 30. On August 28, at least 15 were counted in a small patch of Canada (*Cirsium arvense*) and bull thistle (*Cirsium vulgare*) in an open field; three were collected.

Nymphalis antiopa (Linnaeus)

Only two sightings of the mourning cloak: one on July 15 and one seen flying along the western shore of the island on August 1.

Vanessa atalanta (Linnaeus)

The red admiral is probably the most numerous species on the island during the summer, having been seen almost daily in just about all parts of the island. Eight were counted in an open field in the northern part of the island on August 28, when one was also collected.

Vanessa virginiensis (Drury)

A very common species, especially in August. First seen July 28 and then on most sunny days throughout August; on August 28 over 35 counted in a thistle patch, where four were collected.

Limenitis arthemis (Drury)

One seen in an open field on August 3.

Limenitis archippus (Cramer)

Only two sightings of single individuals: July 15 and July 30.

Lycaena phlaeus americana Harris

A species which appears to be more common in the early part of the summer. Observed throughout July in small numbers, the last sighting on August 3 (1).

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LEPIDOPTERA ACTIVE IN LATE DECEMBER IN
PENNSYLVANIA

During Christmas week, 1964, a tropical air mass worked northward up the Atlantic coast, penetrating the Philadelphia area on Christmas Eve after two days of rain, fog, and temperatures in the high forties. As had happened farther south, temperature records toppled in the wake of the warm front. The mercury climbed steadily the night of the 24th and, under mostly sunny skies, a 93-year record high of 68° F. was registered on Christmas day. This unseasonable weather brought out a male *Nymphalis antiopa* (L.) (Nymphalidae) which the writer captured along Wissahickon Creek, amid equally unprecedented dandelion, moss pink, chickweed, and *Senecio* blossoms.

The following day was cloudy with temperatures again at record levels, including an official high of 68° at the Weather Bureau, and an unofficial 71° at the writer's home. Although no butterflies were seen, a male *Eupsilia sidus* Gn. (Noctuidae) came to light in the garden with a temperature of 62° F. at 9:30 P.M. Dec. 26. *E. sidus* is a well-known hibernator and is usually the first species to fly in the spring; my earliest record is March 10.

Three pupae of *Colias eurytheme* Bdv. which were outdoors in a ventilated container showed traces of orange pigment when examined on Dec. 26. Brought indoors, all three eclosed as males on Dec. 28. Nineteen other pupae in the same lot did not show signs of development and