

Marine Algae of West Ironbound Island

by C. J. Bird*
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The following report is based on a single initial visit to the west side of the island on September 4, 2009. It therefore does not include annual species that appear in other seasons, and the flora of the sub-tidal zone is represented only by what could be seen from the shore at low tide, and by wave-cast detached seaweeds on the beach. The latter are usually derived from the immediate offshore.

Owing to limited access to laboratory facilities, specimens were not collected and identifications are based on field observation only. This necessarily excludes a large number of small algae that are virtually microscopic, but still “seaweeds” or “macroalgae” because of their multi-cellular construction. Further, some algae are identified only to genus, requiring microscopic examination in order to determine species. Despite this limitation, the list of larger perennial algae of the inter-tidal and near-sub-tidal zones is reasonably complete.

From the geological similarities, it is expected that the flora will be the same as that already recorded for nearby Gaff Point on the mainland.

Nomenclature follows Hardy & Guiry (2003) as the most recent compendium list of temperate North Atlantic species.

Site: The “landing” (Canadian Hydrographic Service, 1987; chart 4394), on the west side of the island next to “Foggy Islands” (Anonymous, 2001, p. 80). The substrate consists of outcrops of pyritic slate and igneous rock, which support the bulk of the seaweed flora, and loose stones derived from them, forming two gravel/cobble beaches and filling in gaps in the outcrops. The latter material is too mobile to support seaweed, and probably is an erosive force against the flora on the bedrock.

Intertidal zone and subtidal fringe [R = rare, O= occasional; C=common; A=abundant]:

Green algae

Chaetomorpha melagonium (R, high pools)

Cladophora sp. (R-O, small tufts, sometimes epiphytic)

Enteromorpha sp. (R, restricted to high pools but numerous when present)

Ulva lactuca (O, small; mainly in high pools)

Brown algae

Ascophyllum nodosum (A)

Chorda filum (O)

Chordaria flagelliformis (O)

Dictyosiphon foeniculaceus (O-C)

Elachista fucicola (C, on various fucoids)

Fucus evanescens (R, small, has been replaced by *F. serratus* as the dominant low-tidal fucoid)

Fucus serratus (A, dominant; European species introduced to Lunenburg County in the 1980s and spreading rapidly; here ranging quite high into the intertidal zone and competing with *F. vesiculosus* as well as *F. evanescens*)

Fucus spiralis (C)

Fucus vesiculosus (C)

Laminaria digitata (O)

Laminaria longicuris (R-O, with short stipes and narrow, scarcely ruffled blades)

Red algae

Ahnfeltia plicata (R)

Ceramium rubrum (O)

Chondrus crispus (A in low intertidal, clean)

Clathromorphum compactum (R-O, on littorinid snails as well as submerged rock)

Corallina officinalis (R-O, small)

Hildenbrandia rubra (O-C, mainly under furoid canopy)

Phymatolithon laevigatum (O)

Polysiphonia lanosa (O-C, individual plants of its host *Ascophyllum nodosum* are either densely populated with it or lacking it altogether)

Subtidal zone:

Visually, this consisted of a downward extension of the low-inter-tidal perennials

Fucus serratus and *Chondrus crispus*, punctuated by clumps of *Laminaria* and the annuals *Chordaria* and *Dictyosiphon*. Visibility was restricted to about 1 metre depth by turbidity and dark discoloration by humate-laden fresh water (large efflux of rivers due to recent heavy rains).

Drift material on the larger beach to the south contained the following additional species:

Green algae

Codium fragile ssp. *tomentosoides*

Brown algae

Agarum cribrosum

Desmarestia aculeata

Laminaria saccharina

Red algae

Palmaria palmata

Phycodrys rubens

Ptilota serrata

References:

Anonymous, 2001. The Nova Scotia atlas, ed. 5. Formac Publishing Co., Ltd. and Province of Nova Scotia, Halifax. 90 maps + index.

Canadian Hydrographic Service. 1987. Chart 4394, La Have (sic) River, West Ironbound Island to Riverport. Fisheries and Oceans Canada.

Hardy, G. & M. D. Guiry. 2003. A checklist and atlas of the seaweeds of Britain and Ireland. British Phycological Society, London. 435 pp.

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