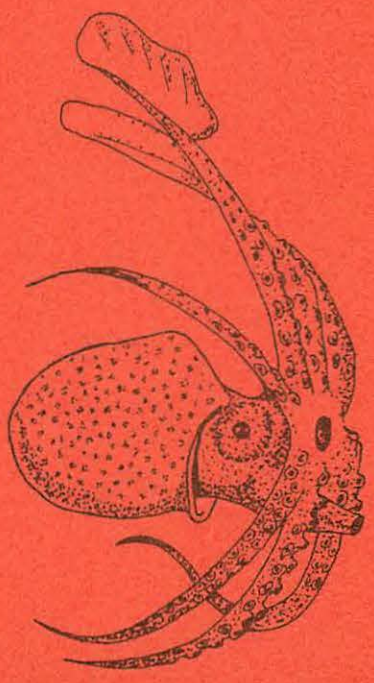
Curatorial Report Number 24

A Collection of animals from Shelburne Harbour 1973

By D.S.Davis and John Gilhen
October 1974

Nova Scotia Museum
1747 Summer St.
Halifax, Nova Scotia, Canada



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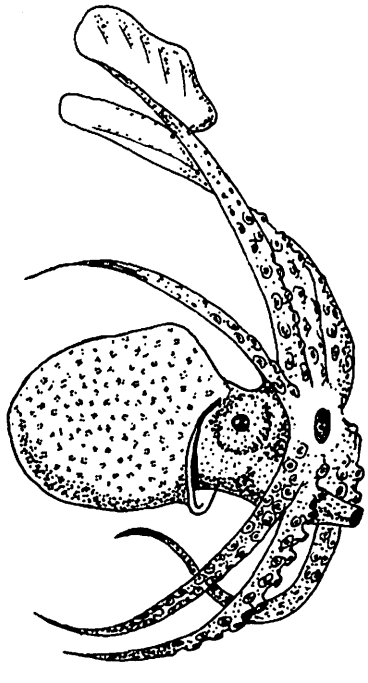

NOVA SCOTIA MUSEUM

Curatorial Reports

The *Curatorial Reports* of the Nova Scotia Museum contain information on the collections and the preliminary results of research projects carried out under the program of the museum. The reports may be cited in publications but their manuscript status should be clearly indicated.

INTRODUCTION

During the summer of 1973 projects were carried out under the Opportunities for Youth Program (OFY) of the Federal Government, at Shelburne, Nova Scotia. One aspect of the work was the collection and preservation of marine life and the use of these collections in public information programs. A display was established in the old post office building in Shelburne. Three of the participants in the project, Peter MacLeod, Danny Acker and Kelsie Williams produced an information leaflet on some of the local marine life and this was in time reproduced by the Nova Scotia Museum for use by Shelburne schools (MacLeod *et al* 1974).

The collection made by the OFY group contained several interesting species, including some first records for Canadian waters. At the end of the projects in 1973 the Nova Scotia Museum obtained the collection from storage in Shelburne so that the important species records might be retained . The collection was transferred to the Nova Scotia Museum in 1974.

A SYNOPSIS OF THE COLLECTION

The collection obtained by the Nova Scotia Museum comprised 31 lots of invertebrates and 34 lots of fishes. Most are representative of the common fauna of the area, but some attention was paid to the lesser known subtropical and tropical forms which move into Nova Scotian coastal waters. Because the collection was made for interpretive use there is a general lack of data. This disadvantage is considered to be out-weighed by the species representation in the collection. A few of the specimens considered to be of little scientific interest and in poor condition were discarded. These are indicated in the species list.

The invertebrates include good specimens of Crustacea and Mollusca. Among these the callico crab, *Hepaticus epheliticus* and the paper nautilus, *Argonauta argo* are of considerable interest. The crab is benthic and a tropical species ranging as far north as Beaufort, North Carolina (Miner, 1950). The paper nautilus is pelagic in warm seas and has been recorded as far north as Marthas Vineyard (Miner, 1950)

Of the fish species collected, three are particularly interesting. Two adult specimens of the feather blenny, *Hypsoblennius hentzi* represent the first records for the Canadian Atlantic. The normal range of this species is in the Bahamas (Böhlke and Chaplin, 1968). One juvenile of the sheepshead, *Archosargus probatocephalus* is the second record for Canadian waters and the first from the coast of Nova Scotia. (Leim and Scott, 1966). This specimen indicates that Cox (1896) was probably correct in his identification of a specimen from St. John Harbour, New Brunswick. One juvenile striped searobin, *Prionotus evolans* is also a first record for Nova Scotian waters and second for Canadian waters (Leim and Scott, 1966).

These species are being carried to the Canadian coast by massive wind-generated replacement of inshore water by water from some distance offshore. Water from the Gulf Stream may be included. This phenomenon has been documented by Hachey 1937 and 1953, and its significance to primary production in Nova Scotian coastal water reported by Platt *et al* 1972. The occurrence of unusual southern fish species has been reported by MacKay and Gilhen 1973a and 1973b. Many of the unusual animals probably enter the Gulf Stream as larvae or juveniles and continue their development up to the time that the water reaches the Nova Scotia coast. Planktonic or weak-swimming pelagic species probably die off in the winter. The callico crab was adult and therefore survived one or two winters following its arrival as a larva. With low winter temperatures there is little chance of species such as these establishing permanent, breeding populations unless they enter areas where there is artificial warming of the sea water by industrial operations.

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SYSTEMATIC LIST OF SPECIES

These animals were collected in various parts of Shelburne Harbour during the summer of 1973. All specimens were accessioned and catalogued but some, in poor condition, were later discarded. These are indicated by an asterisk (*). The number of specimens is indicated by the figure in parentheses following the catalogue number.

COELENTERATA

HYDROZOA		
Sertularia sp.	1974-Z-229.3(5)	
ANTHOZOA		
Metridium senile (Linnaeus)	1974-Z-229.1(1)	
unidentified	1974-Z-229.2(2)	

ARTHROPODA

CRUSTACEA		
Balanus hameri Ascanius	1974-Z-229.4(11)	
Talorchestia longicornis (Say)	1974-Z-229.7(2)	
Pandalus borealis Krøyer	1974-Z-229.5(5)	
Crangon septemspinosus (Say)	1974-Z-229.6(1)	
Homarus americanus Milne-Edwards	1974-Z-229.8(1)	
Pagurus bernhardus (Linnaeus)	1974-Z-229.9(4)	
Hepaticus ephelitiicus (Linnaeus)	1974-Z-229.10(1)	
Cancer irroratus Say	1974-Z-229.11(3)	*

MOLLUSCA

PELECYPODA		
Yoldia myalis Couthouy	1974-Z-229.12(1)	
Mytilus edulis Linné	1974-Z-229.13(5)	
Anomia aculeata Gmelin	1974-Z-229.14(1)	
Placopecten magellanicus (Gmelin)	1974-Z-229.15(2)	*
Hiatella arctica (Linné)	1974-Z-229.16(8)	
CEPHALOPODA		
Ommastrephes illecebrosa (Lesueur)	1974-Z-229.17(1)	
Argonauta argo Linné	1974-Z-229.18(2)	

ECHINODERMATA

ASTEROIDEA		
Asterias vulgaris Verrill	1974-Z-229.22(2)	
Henricia sanguinolenta (O. F. Müller)	1974-Z-229.23(1)	
Hippasteria phrygiana (Parelius)	1974-Z-229.24(1)	
Ctenodiscus crispatus (Retzius)	1974-Z-229.25(1)	
Solaster endeca (Linnaeus)	1974-Z-229.26(1)	
ECHINOIDEA		
Strongylocentrotus dröbachiensis (O. F. Müller)	1974-Z-229.21(2)	
Echinarachnius parma (Lamarck)	1974-Z-229.20(1)	
HOLOTHUROIDEA		
Cucumaria frondosa (Gunnerus)	1974-Z-229.19(2)	

BRYOZOA

ECTOPROCTA		
unidentified colonies	1974-Z-229.27(6)	

CHORDATA

ASCIDIACEA		
Didemnum albidum Verrill	1974-Z-229.28(1)	
Molgula manhattensis Dekay	1974-Z-229.29(3)	
Halocynthia pyriformis Rathke	1974-Z-229.30(2)	
Boltenia ovifera (Linnaeus)	1974-Z-229.31(3)	
PISCES		
Myxine glutinosa Linnaeus, Atlantic hagfish	1974-Z-229.32(1)	*
Prionace glauca (Linnaeus), Blue shark	1974-Z-229.33(2)	
Squalus acanthias Linnaeus, Spiny dogfish	1974-Z-229.34(5)	4 embryo
Raja erinacea Mitchell, Little skate	1974-Z-229.35(2)	*
Anguilla rostrata (Lesueur), American eel	1974-Z-229.36(1)	*
Clupea harengus harengus Linnaeus, Atlantic herring	1974-Z-229.37(1)	*
Gonichthys coccoi, Cocco's lanternfish	1974-Z-229.38(1)	
Lophius americanus Valenciennes, Goosefish	1974-Z-229.39(1)	
Gadus morhua Linnaeus, Atlantic cod	1974-Z-229.40(1)	*

PISCES (continued)

Melanogrammus aeglefinus (Linnaeus), Haddock	1974-Z-229.41(1)	*
Microgadus tomcod (Walbaum) Atlantic tomcod	1974-Z-229.42(1)	*
Pollachius virens (Linnaeus), Pollock	1974-Z-229.43(1)	*
Fundulus heteroclitus (Linnaeus) Mummichog	1974-Z-229.44(3)	
Syngnathus fuscus Storer, Northern pipefish	1974-Z-229.45(1)	
Caranx hippos (Linnaeus), Crevalle jack	1974-Z-229.46(1)	
Naucrates ductor (Linnaeus), Pilotfish	1974-Z-229.47(1)	*
Archosargus probatocephalus (Walbaum), Sheepshead	1974-Z-229.48(1)	
Tautoglabrus adspersus (Walbaum), Cunner	1974-Z-229.49(1)	*
Hypsoblennius hentzil, (Lesueur) feather blenny	1974-Z-229.50(2)	
Lumpenus lumpretaeformis (Walbaum) Snakeblenny	1974-Z-229.51(2)	
Ulvaria subbifurcata (Storer), Radiated shanny	1974-Z-229.52(1)	
Pholis gunnellus (Linnaeus), Rock gunnel	1974-Z-229.53(1)	*
Cryptacanthodes maculatus Storer, Wrymouth	1974-Z-229.54(1)	
Scomber scombrus Linnaeus, Atlantic mackerel	1974-Z-229.55(1)	*
Peprilus triacanthus (Peck), Butterfish	1974-Z-229.56(2)	*
Sebastes marinus (Linnaeus), Redfish or ocean perch	1974-Z-229.57(2)	*
Prionotus carolinus (Linnaeus), Northern searobin	1974-Z-229.58(1)	
Prionotus evolans (Linnaeus), Striped searobin	1974-Z-229.59(1)	
Hemitripterus americanus (Gmelin), Sea raven	1974-Z-229.60(2)	*1
Myoxocephalus aenaeus (Mitchell), Grubby	1974-Z-229.61(1)	
Myoxocephalus scorpius (Linnaeus), Shorthorn sculpin	1974-Z-229.62(1)	*
Cyclopterus lumpus Linnaeus, Lumpfish	1974-Z-229.63(1)	*
Pseudopleuronectes americanus (Walbaum), Winter flounder	1974-Z-229.64(1)	*
Monacanthus hispidus (Linnaeus), Planehead filefish	1974-Z-229.65(2)	