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A REVISED ANNOTATED CHECKLIST  
OF  
VASCULAR PLANTS AND VERTEBRATE ANIMALS  
OF  
NORFOLK ISLAND

To Maureen & Jim  
From Owen Beyle & Rodger  
Norfolk Island 1987

Edited by NEIL HERMES

First Published by the Flora and Fauna Society of Norfolk Island 1985

Revised edition: 1986

With assistance from the Aust. National Parks and Wildlife Service.

ISBN 0 - 9589156 - 1 - X

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Wholly set up and printed on Norfolk Island.

## PREFACE TO FIRST EDITION

Norfolk Island has had an interesting history of research and study of natural history subjects. Cook made the first written observations when the island was discovered by Europeans in 1774. As a result of these observations European settlement occurred on the island. During the time of the first and second settlements many diaries and other accounts of the plants and animals of the island were made. Then followed a long period from which written records are scarce. This situation changed with the widespread increased environmental awareness that started in the 1960's. A major publication concerning conservation issues on Norfolk Island by the Australian Conservation Foundation appeared in 1968. This publication also contained a review of available information on the vascular flora and fauna of the island.

Since that time much research has been done by amateurs and professional scientists; by residents of the island and visitors and by officially sponsored researchers and by people working on their own.

Although a large amount is now known about the species of vascular plants and vertebrate animals that occur on the island the information is very scattered. Information is contained in published and unpublished form, in private hands or government files and held in Australia, New Zealand or Norfolk Island.

The purpose of this publication is to draw together information on Norfolk Island vascular plants and vertebrate animals and make it readily available on Norfolk Island. It is acknowledged that the information is incomplete and likely to be inaccurate in many places, however without a reference point many other sources of information will remain untapped and errors remain undetected.

The editor and publisher will appreciate any comments, observations or referrals to other sources of information.

Neil Hermes

## PREFACE TO SECOND EDITION

Due to the unforeseen demand for the first edition and access to new information, it has been my pleasure to edit a second and revised edition of this checklist. Much additional information has been added through the text and new chapters on endangered plants, invertebrates and indices have been written.

Neil Hermes, Norfolk Island

November 1985

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### Checklist of Regular Norfolk Island Birds

### ACKNOWLEDGMENTS

The publisher and editor would like to thank all those who have kindly supplied information to make this publication possible.

Thanks go to Margaret Christian for typing the text, to Mark Sexton for assisting with the preparation of the indices and to Derek Greenwood for the preparation of illustrations.

MAMMALSTERRESTRIAL MAMMALS

Two native species and eight exotics are recorded. Names follow "The Complete Book of Australian Mammals" by R. Strahan 1983.

NATIVE

Mormopterus (Tadarida) norfolkensis Eastern Little Mastiff-bat

Very rare or extinct. Of suspect provenance. Only one specimen recorded and some doubt exists over this record (see Strahan 1980 for review).

Chalinolobus gouldii Gould's Wattled Bat

Very rare or extinct. First recorded in 1915 (Troughton 1922). Bats were 'now uncommon on the island' (Turner et. al 1968). In 1983 residents commented that bats had been seen as recently as 'five years ago'. No evidence was found in searches in 1983 (Gordon 1983).

INTRODUCED

Rattus rattus Black Rat

Very common, not found on Nepean or Philip Island. Introduced from ships during the first or second penal settlement. (Anon. 1984)

Rattus exulans Polynesian Rat

Very rare, possibly extinct. Introduced prior to European settlement and largely displaced by the Black Rat (Anon. 1984). No recent records and no recent surveys.

Mus musculus House Mouse

Common on Norfolk Island, one record Nepean Island in 1983 (Hermes), not recorded on Philip Island.

Oryctolagus cuniculus Rabbit

Localised populations remain on Philip Island. No records for Norfolk Island or Nepean Island. First Philip Island record 1835 (Fullagar 1978). Major eradication program begun in 1981.

Canis familiaris

## Feral Dog

Extinct. Dogs were released on Norfolk Island on the closure of the first penal settlement to control pig and goat numbers (Anon 1984).

Felis catus

## Feral Cat

Common on Norfolk Island and absent from Philip and Nepean Islands. Was established during second penal settlement (Best 1838). Numbers fluctuate and population is added to by straying or dumped domestic individuals.

Sus scrofa

## Feral Pig

Extinct. Introduced to Norfolk Island during the first penal settlement. Established wild population was present when the first settlement was abandoned in 1813. Not exterminated from Norfolk Island until after the commencement of Pitcairn settlement in 1856 (Anon 1984). Introduced to Philip Island 1790 and present until 1840 (Fullagar 1978). Philip Island was then known as Pig Island and feral pig numbers reached 4,835 (Collins 1802) and 14,642 (Hoare 1969). It has been reported that from time to time domestic pigs have escaped into the wild in recent years (Owen Evans pers. comm.).

Capra hircus

## Feral Goat

Extinct. Introduced to Norfolk Island during first penal settlement. Established wild population was present when first penal settlement was abandoned in 1813. Not exterminated from Norfolk Island until after the commencement of Pitcairn settlement in 1856 (Anon 1984). Recorded on Philip Island 1838 - 1848 (Fullagar 1978).

Note : Norfolk Island Flying Squirrel

An early painting was done of a possum from N.S.W which was incorrectly thought to have come from Norfolk Island. No records of native mammals, other than the two species of bats, have been made on Norfolk Island.

MARINE MAMMALS

Whaling was conducted by American whalers in Norfolk Island waters during the 1800's. Land based whaling occurred on Norfolk Island up until 1962 (Edgecombe 1983). Principal whale species taken were Sperm Whales (Physeter macrocephalus), Right Whales (Balaena glacialis) and Humpback Whales (Megaptera novaeangliae) (Langdon 1978). Recent reports include sightings of large whales, 'Pilot Whales', 'Killer Whales' and dolphins.

A seal was collected off Kingston in the 1950's (D.Yager pers.comm. to Hermes 1984).

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BIRDS

117 species of birds have been recorded for Norfolk Island in modern times. Breeding land and freshwater species total 32 species, breeding seabirds 12 species, extinct species 6 species and non-breeding migrants and vagrants 67 species. This list comes from the major recent publication on Norfolk Island birds 'A Review of Norfolk Island Birds Past and Present' by R. Schodde, P. Fullagar and N. Hermes, Special Publication No.8 ANPWS Canberra 1983. Seventeen species have been added to the Norfolk list since that publication - all vagrants or irregular migrants (Hermes 1985 in press).

Australasian Grebe	<u>Tachybaptus novaehollandiae</u>	Vagrant
? Wandering Albatross	<u>Diomedea exulans</u>	Vagrant
Black-browed Albatross	<u>Diomedea melanophrys</u>	Vagrant
Giant-Petrel	<u>Macronectes</u> sp.	Vagrant
Cape Petrel	<u>Daption capense</u>	Vagrant
* Providence Petrel	<u>Pterodroma solandri</u> (Bird of Providence)	Breeding, resident ?
Black-winged Petrel	<u>Pterodroma nigripennis</u>	Breeding, migrant ?
Flesh-footed Shearwater	<u>Puffinus carneipes</u>	Vagrant
Wedge-tailed Shearwater	<u>Puffinus pacificus</u> (Ghostbird)	Breeding migrant
Little Shearwater	<u>Puffinus assimilis assimilis</u> (Laro)	Breeding resident
Australian Pelican	<u>Pelecanus conspicillatus</u>	Vagrant
Australasian Gannet	<u>Morus serrator</u>	Breeding, resident ?
Masked Booby	<u>Sula dactylatra personata</u> (Gannet)	Breeding, resident ?
Brown Booby	<u>Sula leucogaster</u>	Vagrant
Great Cormorant	<u>Phalacrocorax carbo</u>	Vagrant
Little Black Cormorant	<u>Phalacrocorax sulcirostris</u>	Vagrant
Little Pied Cormorant	<u>Phalacrocorax melanoleucos</u>	Vagrant
Least Frigatebird	<u>Fregata ariel</u>	Vagrant
Red-tailed Tropicbird	<u>Phaethon rubricauda roseotincta</u>	Breeding resident
White-tailed Tropicbird	<u>Phaethon lepturus</u>	Vagrant
Pacific Heron	<u>Ardea pacifica</u>	Vagrant
White-faced Heron	<u>Ardea novaehollandiae</u> (Crane)	Breeding, recent colonist ?
Cattle Egret	<u>Ardeola ibis</u>	Vagrant
Great Egret	<u>Egretta alba</u>	Vagrant
Little Egret	<u>Egretta garzetta</u>	Vagrant
Sacred Ibis	<u>Threskiornis aethiopica</u>	Vagrant
Straw-necked Ibis	<u>Threskiornis spinicollis</u>	Vagrant
Royal Spoonbill	<u>Platalea regia</u>	Vagrant



Black Swan	<u>Cygnus atratus</u>	Vagrant
Australian Shelduck	<u>Tadorna tadornoides</u>	Vagrant
Pacific Black Duck	<u>Anas superciliosa</u>	Breeding, vagrant or resident ?
Mallard	<u>Anas platyrhynchos platyrhynchos</u>	Vagrant
Hardhead	<u>Aythya australis</u>	Vagrant
Brown Goshawk	<u>Accipiter fasciatus</u>	Migratory vagrant
Marsh Harrier	<u>Circus aeruginosus</u>	Migratory vagrant
Australian Kestrel	<u>Falco cenchroides cenchroides</u>	Breeding resident ?
Feral Chicken	<u>Gallus gallus</u> (Fowl)	Extinct or rare resident, introduced.
Common Pheasant	<u>Phasianus colchicus</u>	Extinct, introduced
California Quail	<u>Lophortyx californicus</u>	Introduced
Buff-banded Rail	<u>Rallus philippensis australis</u> (Little Tarler Bird)	Breeding vagrant or resident ?
Spotless Crake	<u>Porzana tabuensis</u> (Little Tarler Bird)	Breeding vagrant or resident ?
Purple Swamphen	<u>Porphyrio porphyrio melanotus</u> (Tarler Bird)	Breeding vagrant
Eurasian Coot	<u>Fulca atra</u>	Vagrant
Sth. Island Pied Oystercatcher	<u>Haematopus finschi</u>	Vagrant
Masked Lapwing	<u>Vanellus miles</u>	Vagrant
Lesser Golden Plover	<u>Pluvialis dominica</u> (Snipe)	Regular migrant
Mongolian Plover	<u>Charadrius mongolus</u>	Irregular migrant
Double-banded Plover	<u>Charadrius bicinctus</u>	Regular migrant
Black-winged Stilt	<u>Himantopus himantopus</u>	Vagrant
Ruddy Turnstone	<u>Arenaria interpres</u>	Regular migrant
Eastern Curlew	<u>Numenius madagascariensis</u>	Irregular migrant
Whimbrel	<u>Numenius phaeopus</u> (Shipmate)	Regular migrant
Bristle-thighed Curlew	<u>Numenius tahitiensis</u>	Irregular migrant
Grey-tailed Tattler	<u>Tringa brevipes</u>	Irregular migrant
Wandering Tattler	<u>Tringa incana</u>	Irregular migrant
Common Sandpiper	<u>Tringa hypoleucos</u>	Irregular migrant
Greenshank	<u>Tringa nebularia</u>	Irregular migrant
Marsh Sandpiper	<u>Tringa stagnatilis</u>	Irregular migrant
Terek Sandpiper	<u>Tringa terek</u>	Irregular migrant
Latham's Snipe	<u>Gallinago hardwickii</u>	Irregular migrant
Hudsonian Godwit	<u>Limosa haemastica</u>	Irregular migrant
Bar-tailed Godwit	<u>Limosa lapponica</u>	Regular migrant
Red Knot	<u>Calidris canutus</u>	Irregular migrant
Sharp-tailed Sandpiper	<u>Calidris acuminata</u>	Irregular migrant

Red-necked Stint	<u>Calidris ruficollis</u>	Irregular migrant
Curlew Sandpiper	<u>Calidris ferruginea</u>	Irregular migrant
Skua	<u>Stercorarius</u> sp.	Irregular migrant
Silver Gull	<u>Larus novaehollandiae</u>	Vagrant
Kelp Gull	<u>Larus dominicanus</u>	Vagrant
White-winged Tern	<u>Chlidonias leucoptera</u>	Vagrant
Sooty Tern	<u>Sterna fuscata serrata</u> (Whale Bird)	Breeding, migrant
? Little Tern	<u>Sterna albifrons</u>	Vagrant
Common Noddy	<u>Anous stolidus pileatus</u>	Breeding, resident ?
Black Noddy	<u>Anous minutus minutus</u> (Titerack or Tetrach)	Breeding, resident ?
Grey Ternlet	<u>Procelsterna albivittata albivittata</u> (Patro)	Breeding, resident ?
White Tern	<u>Gygis alba royana</u> (White Bird)	Breeding, resident ?
Rose-crowned Fruit Dove	<u>Ptilinopus regina</u>	Vagrant
Feral Pigeon	<u>Columba livia</u>	Introduced
New Zealand Pigeon	<u>Hemiphaga novaeseelandiae spadicea</u>	Extinct, endemic subspecies
Norfolk Island Ground-Dove	<u>Gallicolumba ? norfolciensis</u>	Extinct, endemic species
Emerald Dove	<u>Chalcophaps indica chrysochlora</u>	Introduced ?
Norfolk Island Kaka	<u>Nestor productus</u>	Extinct, endemic species
Crimson Rosella	<u>Platycercus elegans elegans</u> (Red Parrot)	Introduced
Red-fronted Parakeet	<u>Cyanoramphus novaezelandiae cookii</u> (Green Parrot)	Rare endemic subspecies
Pallid Cuckoo	<u>Cuculus pallidus</u>	Vagrant
Shining Bronze-Cuckoo	<u>Chrysococcyx lucidus lucidus</u> (Greenback)	Breeding migrant
Long-tailed Cuckoo	<u>Eudynamis taitensis</u>	Irregular breeding migrant
Norfolk Island Boobook Owl	<u>Ninox undulata</u>	Rare endemic species
Barn Owl	<u>Tyto alba</u>	Vagrant
White-throated Needletail	<u>Hirundapus caudacutus</u>	Irregular migrant
Fork-tailed Swift	<u>Apus pacificus</u>	Irregular migrant
Sacred Kingfisher	<u>Halcyon sancta norfolkiensis</u> (Norffka)	Breeding resident
Dollarbird	<u>Eurystomus orientalis</u>	Irregular migrant
Richards Pipit	<u>Anthus novaeseelandiae</u>	Recent colonist
Welcome Swallow	<u>Hirundo neoxena</u>	Recent colonist
Long-tailed Triller	<u>Lalage leucopyga leucopyga</u>	Extinct endemic subspecies

Grey-headed Blackbird	<u>Turdus poliocephalus poliocephalus</u> (Guava Bird)	Rare endemic subspecies
Blackbird	<u>Turdus merula merula</u>	Recent colonist
Song Thrush	<u>Turdus philomelos</u>	Recent colonist
Scarlet Robin	<u>Petroica multicolor multicolor</u> (Robin)	Endemic subspecies
Golden Whistler	<u>Pachycephala pectoralis xanthoprota</u> (Tamey)	Endemic subspecies
Grey Fantail	<u>Rhipidura fuliginosa pelzelni</u>	Endemic subspecies
Grey Gerygone	<u>Gerygone igata modesta</u> (Hummingbird)	Endemic subspecies
Silvereye	<u>Zosterops lateralis lateralis</u> (Grinnell)	Recent colonist
White-breasted White-eye	<u>Zosterops alboocularis</u> (Grinnell)	Rare endemic species
Long-billed White-eye	<u>Zosterops tenuirostris</u> (Grinnell)	Endemic species
European Goldfinch	<u>Carduelis carduelis</u>	Recent colonist
European Greenfinch	<u>Carduelis chloris</u>	Recent colonist
House Sparrow	<u>Passer domesticus</u>	Introduced
Norfolk Island Starling	<u>Aplonis fusca fusca</u> (Blackbird, Bate's Bird)	Extinct endemic subspecies
Common Starling	<u>Sturnus vulgaris</u>	Breeding, introduced or recent colonist
Common Mynah	<u>Acridotheres tristis</u>	Vagrant

NOTE : Unconfirmed records are prefaced with a question mark (?).

Local names are given in brackets.

NEWLY RECORDED VAGRANTS

<del>Black breasted</del> Shy Albatross	<u>Diomedea <sup>melanophrys</sup> cauta</u>	Vagrant
Intermediate Egret	<u>Egretta intermedia</u>	Vagrant
Yellow-billed Spoonbill	<u>Platalea flavipes</u>	Vagrant
White-fronted Tern	<u>Sterna striata</u>	Vagrant
Fairy Martin	<u>Cecropis ariel</u>	Vagrant

\* SPECIAL NOTE

Providence Petrel Pterodroma solandri (Bird of Providence)  
Rediscovered nesting on Philip Island in July 1985 after being absent since before 1800 (Hermes in press).

ENDEMISM OF THE MODERN RESIDENT LAND BIRDS

There are thirty-two species of extant resident land and freshwater birds on Norfolk Island.; if the modern extinctions are added to this list (excluding seabirds) the total number of known resident species for the Norfolk complex is thirty-eight. The following table gives the known level of endemism for them. There are no endemic taxa at a level higher than a species.

ENDEMIC SPECIES

Norfolk Island Ground-Dove	Extinct
Norfolk Island Kaka	Extinct
Norfolk Island Boobook Owl	Very rare
White-breasted White-eye	Very rare, possibly extinct
Long-billed White-eye	Moderately abundant in rainforest

ENDEMIC SUBSPECIES

New Zealand Pigeon	Extinct
Red-fronted Parakeet	Very rare
Long-tailed Triller	Extinct
Grey-headed Blackbird	Very rare, possibly extinct
Scarlet Robin	Uncommon, restricted to rainforest
Golden Whistler	Widespread
Grey Fantail	Common, widespread
Grey Gerygone	Common, widespread
Norfolk Island Starling	Extinct

WIDESPREAD SPECIES

White-faced Heron	Possible self introduction
Pacific Black Duck	Possible self introduction
Mallard	First record 1971
Australian Kestrel	First record 1969
Feral Chicken	An early introduction
Common Pheasant	An early introduction
California Quail	Introduced about 1900
Buff-banded Rail	Status uncertain
Spotless Crake	Status uncertain
Purple Swamphen	Possible self introduction

## Widespread species (cont'd)

Feral Pigeon	An early introduction
Emerald Dove	Introduction or self introduction in the 1800's
Crimson Rosella	An early introduction
Shining Bronze-cuckoo	Probable native species
Sacred Kingfisher	Probable native species
Welcome Swallow	First record 1969
Blackbird	First record 1920
Song Thrush	First record 1913
Silvereye	First record 1904
European Goldfinch	First record 1963
European Greenfinch	First record 1939
House Sparrow	First record 1939
Common Starling	First record 1913

REPTILES

Two species of native terrestrial lizards are recorded in the Norfolk Island group. See Cogger et. al 1983 for detailed discussion of these species.

TERRESTRIAL REPTILESNATIVEPhyllodactylus guentheri

Greater Marbled Gecko

Common on Philip and Nepean Islands and islets to the north of Norfolk Island. Not recorded on Norfolk Island. Also recorded at Lord Howe Island (Cogger et.al 1983).

Leiolopisma lichenigerum

Philip Island Skink

Rare. Found only on Philip Island and Lord Howe Island. First discovered on Philip Island in 1978 (Cogger et. al 1983).

INTRODUCED

In April 1983 a Rock Skink Egernia saxatilis was collected after emerging from machinery being unloaded from the ship at Kingston Pier. (Hermes, unpublished).

MARINE REPTILESNATIVE

Unidentified seasnakes and one or more species of turtles have been recorded in Norfolk Island waters (Cogger et. al 1983). A report of turtles breeding at Anson Bay (Turner et. al 1968) is questioned (Cogger et. al 1983. Best (1838) reports hunting of turtles by soldiers of penal colony.

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Special Publication No. 1 Australian Conservation Foundation Melbourne.

AMPHIBIANS

The only known record of any amphibian fauna occurring on Norfolk Island is a statement by Cunningham in 1830 saying " frogs inhabit the waters " (Holloway 1977).

There are no modern records of any amphibians.

REFERENCES

- Holloway, J.D. 1977  
The Lepidoptera of Norfolk Island, Their Biogeography and Ecology.  
Dr. J.W. Junk The Hague



FISHFRESHWATER SPECIES

One native and two introduced species have been recorded.

Anguilla australis

Shortfinned Eel

Native. Regularly recorded in Watermill Dam (Anon 1984). Widespread in western Pacific including Lord Howe Island and eastern Australia. Adults live in fresh water and return to the sea to spawn.

(Also listed in saltwater species)

\*  
;

Poecilia reticulata

Common Guppy

Introduced from South America and now a popular aquarium fish, common in some streams on Norfolk Island. Identified in 1983 by Dr. R.McKay at Queensland Museum on the basis of specimens collected at Bumboras and sent to Australian Museum (Hermes unpublished).

Gambusia affinis

Mosquito Fish

Introduced from Gulf of Mexico and established in streams in many parts of Australia. Identified on the basis of specimens collected in Watermill Dam 1982 and sent to Dr. R.M. McDowell, Fisheries Research Division of Ministry of Agriculture, Christchurch (Hermes unpublished).

Native freshwater fish such as Galaxias may be expected to occur on Norfolk Island however surveys have failed to discover them (Anon 1984)(Hoese et. al 1975).

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Unpublished report ANPWS Canberra.

\* Anguilla reinhardtii

Longfinned Eel

SALTWATER SPECIES

Of 172 species listed 156 are considered shorefish (excluding sharks and some others). Only 4 species are endemic to Norfolk Island however a total of 18 Norfolk species are endemic to the Norfolk/Lord Howe and Kermadec Islands. List follows Hoese et. al 1975 and additional notes are by Coyne (unpublished notes 1979-83) and Lewis (unpublished notes 1981-83). Data from offshore fish surveys have not been included.

TRIAKIDAE

Reef Sharks

Mustelus antarcticusCARCHARHINIDAE

Whaler Sharks

Carcharhinus sp.Galeocerdo cuvier

Tigershark

DASYATIDAE

Stingrays

Urolophus sp.(?)ANGUILLIDAE

Eels

Anguilla australis

Shortfinned Eel

\* Anguilla reinhardtii

Longfinned Eel

MURAENIDAE

Moray Eels

Gymnothorax annasona

Purple gold speckle and very handsome.

Gymnothorax eurostus

Abbotts Moray

Gymnothorax nubilusGymnothorax obesusOPHICHTHYIDAE

Burrowing Snake Eels

Elapsopsis cyclorhinusMuraeichthys nicholsaeMyrichthys maculosusCLUPEIDAE

Herrings

Spratelloides gracilis

<u>SYNODONTIDAE</u>		Lizardfishes
	<u>Saurida gracilis</u>	
	<u>Synodus variegatus</u>	
	<u>Synodus n. sp.</u>	
	* <u>Trachinocephalus myops</u>	Bluntnose Lizardfish
<u>CHANIDAE</u>		Milkfishes
	<u>Chanos chanos</u>	Milkfish
<u>PLOTOSIDAE</u>		Catfishes
	<u>Plotosus lineatus</u>	
<u>GOBIESOCIDAE</u>		Clingfishes
	<u>Alabes parvulus</u>	
	<u>Lepadichthys frenatus</u>	
<u>MORIDAE</u>		
	<u>Lotella callarias</u>	
<u>OPHIDIIDAE</u>		Cusk Eels
	<u>Dermatopsis sp.</u>	
<u>HEMIRAMPHIDAE</u>		Garfishes
	<u>Hyporhamphus australis</u>	
<u>BELONIDAE</u>		Long Toms
	<u>Ablennes hians</u>	
	<u>Platybelone argalus</u>	
<u>SCOMBERESOCIDAE</u>		Mackerels
	<u>Scomberesox saurus</u>	
<u>MONODACTYLIDAE</u>		Batfishes
	<u>Monodactylus argenteus</u>	Silver Batfish
<u>AULOSTOMIDAE</u>		Painted Flutemouths
	<u>Aulostomus chinensis</u>	
<u>FISTULARIDAE</u>		Flutemouths
	<u>Fistularia commersonii</u>	Smooth Cornetfish
	Very swift if followed but stationary if approached circuitously	

SCORPIDIDAE\* Atypichthys latus'Tweed Trousers'  
Scorpion FishesSCORPAENIDAEDendrochirus zebraPterois volitansScorpaena cookiScorpaenodes guamensisScorpaenodes littoralisSERRANIDAE

Rock Cods

Acanthistius cinctus

'Tough Cord'

Epinephelus daemeliEpinephelus fasciatus

Black-tipped Rock Cod

Epinephelus merra

Wirenetting Rock Cod

Epinephelus rhyncholepis

'Bucket'

Epinephelus sp.Trachypoma macracanthus

'Slepry Dolly'

GRAMMISTIDAE

Soapfishes

Aulacocephalus temminckiPLESIOPIDAE

Prettyfins

Plesiops sp.KUHLIIDAE

Flagtails

Kuhlia mugilPRIACANTHIDAE

Big Eyes

Priacanthus cruentatusAPOGONIDAE

Cardinalfishes

Apogon norfolcensisApogon sp.A.Apogon sp.B.Archamia leai endemic to Norfolk IslandLABRACOGLOSSIDAEBathystethus cultratus

'Yehollie'

Labracolglossa nitida

ECHENEIDAET

Suckerfishes

Echeneis naucrates

Remora

CARANGIDAE

Jacks and Trevallys

- \* Decapterus macarellus  
Caranx nobilius

Mackerel Scad

Caranx orthogrammus ?Seriola lalandi

Kingfish

Tachurus sp.

- \* Pseudocaranx dentex (White Trevally) 'Little Yehollie'

ARRIPIDAEArripis truttaLUTJANIDAE

Snappers

Caesio chrysozonaCaesio pisangLutjanus vaigiensisPOMADASYIDAE

Sweetlips

Pseudopristipoma nigraLETHRINIDAE

Emperors

Lethrinus chrysostomus

Trumpeter

The major commercial fish in Norfolk waters. Subject of major research program by Australian Government in 1982-3 (Researcher T. Church).

SPARIDAE

Silver Bream

Chrysophrys auratusMULLIDAE

Goatfishes

Mulloidichthys flavolineatusMulloidichthys vanicolensisParupeneus porphyreus

Goatfish

Upeneus tragula

The 'Brown Goatfish' distinguished by white spot above tail. Basically brown though capable of quick colour variations. Swim in small shoals of up to a dozen in clearly defined areas. Fossick in sand with retractable barbels which extend below their mouths. Often seen resting motionless on rocks.

Estimated population 25.

'Gold-stripe Goatfish' - slimmer than Brown Goatfish but similar feeding habits and social habits. Tends to prefer sand to rocks. Fast colour and pattern changes when awakening from resting on sand (Lewis unpublished).

PEMPHERIDAE

Sweeps

Pempheris analisKYPHOSIDAE

Rudderfishes

Girella cyaneaKyphosus fuscus

'Nanwi'/'Dreamfish'

Kyphosus vaigiensis\* Kyphosus sydneyanusSCORPIDIAE

Footballers

Atipichthys latus

Shy, shoaling fish, territorial around fan coral.

Scorpis lineolatus ?Scorpis violaceusCHAETODONTIDAE

Butterflyfishes

[All notes on this family supplied by Lewis (unpublished) from observations on Kingston Reef 1982]

Chaetodon auriga

Threadfin Butterfly

Very handsome, active but very shy. Basically white, pointed nose, black face bar, black two-way diagonal stripes, yellow upper hindquarters, prominent false eye and in older specimens dorsal fin extends to trailing thread - hence name. Generally in pairs, quick to take cover amongst coral.

Estimated population 15

Chaetodon citrinellus

Citron Butterfly

Lemon yellow with blue or black speckles over body. Rare and often solitary. Always around corals, takes cover readily.

Estimated population 10

Chaetodon flavirostris

Yellowfaced Butterflyfish

Blue body, yellow face, white nose and three shades of orange and yellow around dorsal, anal and tail fin. Often solitary, shy. Slips under coral if approached too closely. Tends to swim slowly or hover. Estimated population 15-20

Chaetodon lunulaChaetodon mertensiiChaetodon pelewensisChaetodon plebeius

Coral Butterflyfish or  
Blue-spot Butterfly

Identified by the blue smudge along upper portion of yellow body, prominent black false eye at base of tail ringed with white, vertical black face bar. Found in groups of 2,3 or 4, always around corals. Yellow colour varies from dark in older specimens to light and bright in juveniles. Active fish.

Estimated population 40+

Chaetodon tricinctus

Threestripe Butterflyfish  
or Threebanded Butterflyfish

Almost always found in pairs or groups of up to  $\frac{1}{2}$  dozen around coral growths. Length 15cm. Readily identified by saucer shape, three very distinct wide black bands over white body. Yellow nose, tail, dorsal and anal fins. Estimated population 60+

Chaetodon vagabundusChelmonops howensisForcipiger flavissimusPOMACANTHIDAE

Angelfishes

Centropyge tibicenPOMACENTRIDAE

Damselishes

Abudefduf saxatilis

Yellow-stripe Damselish

Abudefduf sexfasciatus

6-Banded Sgt.Major

Abudefduf sordidusAmphiprion latezonatusChromis hypsilepisChromis vanderbiltiChromis sp.n.Glyphidodontops glaucusGlyphidodontops notialisParaglyphidodon polyacanthusParma polylepis

Banded Scalyfin

"Artooti"

Very common and curious. Very dark colour, sometimes orange face bars.

Stegastes fasciolatusStegastes gascoyneiCIRRHITIDAE

Hawkfishes

Cirrhitus splendensParacirrhites forsteriCHIRONEMIDAEChironemus microlepisAPLODACYTYLIDAEDactylosargus etheridgi

Etheridges Sea Carp

"Stiddy"

So named for its sedentary habit of lying motionless on rocks or sand for long periods. Colour - variations of grey marbling camouflage. Very common - 100+ within Kingston reef area 1982.

CHEILODACTYLIDAE

Morwongs

Cheilodactylus ehippium

Painted Morwong

"Sgt. Fish"

Length 35 cm. Brown and white striped. Holes up under fan corals.

MUGILIDAE

Mulletts

Myxus elongatusMugil cephalus

Sea Mullet

Large and silvery, coarse scales. Grub along bottom. Length 45 cm.

\* Valamugil seheliLABRIDAE

Wrasses

Anampses elegansChoerodon sp.Coris pictaCoris sandageriCoris n.sp.Gamphosus variusHalichoeres margaritaceusPseudojuloides elongatusPseudolabrus inscriptus

Common,

Inscribed Wrasse

Pseudolabrus luculentusPseudolabrus n.sp.



	<u>Stethojulis bandanensis</u>	
	<u>Thalassoma amblycephalus</u>	
	<u>Thalassoma fuscum</u>	
	<u>Thalassoma hardwickei</u>	
	<u>Thalassoma lunare</u>	
	<u>Thalassoma lutescens</u>	
	<u>Thalassoma purpureum</u>	
<u>SCARIDAE</u>	* <u>Scaridae rivulatus valenciennes</u>	'Po-'ov'
<u>LIMNICHTHYIDAE</u>		
	<u>Limnychthys fasciatus</u>	
<u>BLENNIIDAE</u>		Blennys
	<u>Cirripectes alboapicalis</u>	
	<u>Cirripectes filamentosus</u>	
	<u>Entomacrodus striatus</u>	
	<u>Istiblennius edentulus</u>	
	<u>Istiblennius lineatus</u>	
	<u>Parablennius</u> sp. Endemic to Norfolk Island	
	<u>Plagiotremus tapeinosoma</u>	
	<u>Rhabdoblennius snowi</u>	
<u>TRIPTERYGIIDAE</u>		Triplefins
	<u>Norfolkia squamiceps</u>	
	<u>Vauclusella rufopilea</u>	
	<u>Vauclusella</u> sp.	
<u>CLINIDAE</u>		Scaled Blennies
	<u>Heteroclinus roseus</u>	
<u>CALLIONYMIDAE</u>		Dragonets
	<u>Callionymus calcaratus</u>	
	<u>Diplogrammus goramensis</u>	
<u>GOBIIDAE</u>		Gobies
	<u>Bathygobius aeolosoma</u>	
	<u>Callogobius</u> sp.	
	<u>Eviota viridis</u>	
	<u>Eviota</u> sp. Norfolk Island endemic	
	<u>Eviota</u> sp.	
	<u>Priolepis semidoliatus</u>	

ACANTHURIDAE

Surgeonfishes

Acanthurus xanthopteros

Ringtailed Surgeon

(previously A. dussumieri)

White band around caudal peduncle, brilliant blue tail with numerous darker spots. Dorsal and anal fins yellow edged with blue when erect. Prominent white 'scalpel' at base of tail. Body basically green with blue horizontal vermiculations. Capable of changing colour quite readily. Browses on weed. Easily alarmed and quick to take cover. Small number ie. less than 5 in Kingston reef area (Lewis unpublished).

Acanthurus nigrofuscusAcanthurus triostegusNaso unicornis

Brown Unicorn Fish

Very handsome, large fish, length 40cm.. Dark olive green, two brilliant blue blisters on caudal peduncle and brilliant blue edges to fins. Prominent horn and tail elongation in mature fish. Lighter shoulder flash. Extremely shy. Only 2 specimens seen, very fast when alarmed (Lewis unpublished)

Prionurus maculatusZANCLIDAE

Moorish Idols

Zanclus cornutusSCOMBRIDAE

Tunas

Sarda australisCENTROLIPHIDAESchedophilus maculatusBOTHIDAE

Lefthanded Flounders

Bothus pantherinusPLEURONECTIDAE

Righthanded Flounders

Peltorhamphus latusSOLEIDAE

Soles

Unknown sp.

BALISTIDAE

Triggerfishes

Rhinecanthus rectangulus\* Sufflamen fraenatus

Masked Triggerfish

MONOCANTHIDAE

Leatherjackets

Pervagor melanocephalusTETRAODONTIDAE

Pufferfishes

Canthigaster callisternusLagocephalus scleratusTourquigener altipinnisNew genus, new species endemic to Norfolk IslandDIODONTIDAE

Porcupinefishes

Unknown sp.

\* denotes additions to the list up end November 1985. These records have been collected by M. Christian and confirmed by officers of the Australian Museum.

NORFOLK ISLAND ENDEMIC SPECIESArchamia leaiParablennius sp. n.Tetraodontidae gen. + sp. nov.Eviota sp. 11ADDITIONAL NORFOLK SPECIES ENDEMIC TO  
NORFOLK, LORD HOWE AND (KERMADECS \*)Agopon sp. AAgopon sp. BCirrhitus splendensVauclusella sp.Bathygobius aelosomaChaetodon tricinctusChironemus microlepisGymnothorax annasonaMuraenichthys nicholsaeNorfolkia squamicepsVauclusella rufopileaEviota sp.Cirripectes alboapicalis (\*)Vauclusella sp.REFERENCES

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A Preliminary Annotated Checklist of the Fishes of Norfolk Island.  
Unpublished report to ANPWS Canberra

INSECTS OF NORFOLK ISLAND

There has been little study of the insects in Norfolk Island. Turner et al. (1968) state that 450 species have been recorded but that this represents only a small proportion of the total number of species as the island has not been systematically surveyed. Of the species collected 65 are considered endemic and recent surveys indicate a surprisingly high level of endemism on the satellite islands.

Fifteen butterfly species and approximately 190 moth species have been recorded on Norfolk Island. None of the butterfly species are endemic but there are two endemic sub-species. A number of the moths are thought to be endemic.

There is some evidence to suggest that native bees were once common in Norfolk Island but that their numbers have declined markedly possibly following the introduction of an Italian bee species. No bee species are now common on the island.

Many native species of ants have been recorded and exotic ants occur on Norfolk Island. Several wasp species are known. A colony of the exotic European wasp was discovered on Norfolk Island but fortunately this was destroyed.

Five species of dragonfly have been recorded in Norfolk Island and sixteen species of barklice including many endemics.

About 30 species of beetles have been recorded on Norfolk Island and these include many endemics. A number of species of dung beetle have been deliberately introduced to lessen cattle dung accumulation and thereby reducing the number of flies and contributing to soil nutrition. At least four species of dung beetle are now established on the island.

Thirty five species of flies and mosquitoes are recorded. These mainly comprise of houseflies, blowflies and midgeflies but there are four species of mosquitoes recorded and one species of botfly.

Other insect groups recorded on Norfolk Island include crickets, including endemic forms, lace-wings, thrips and exotic cockroaches.

A list of insect species for Norfolk Island is given by Turner et al. (1968). Studies since that time include work in 1980 by G.B. Monteith of Queensland Museum on soil arthropods, studies in 1984 by the CSIRO Division of Entomology comparing the invertebrate fauna of Philip and Norfolk Islands and continuing work by Mrs. M. Jowett of Norfolk Island on Lepidoptera. Isolated records of pests or large or colourful insects have been made over the years and these identifications are scattered on various files of the Norfolk Island Administration. Many of these records were extracted and summarised by N. Hermes and L.Hill and are available from the Australian National Parks and Wildlife Service on Norfolk Island. Many species of insects have been introduced to Norfolk Island in attempts at biological control of weedy plants eg. lantana.

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SPIDERS OF NORFOLK ISLAND

Thirty species of spiders occur on Norfolk Island. The only definitive publication was by W. Rainbow in 1920. He listed 26 species. The information presented here is based on Rainbow's list with additional unpublished material provided by Mr. Ken Clark and Mrs. M. Jowett. Correspondence on file with Norfolk Island Administration and the Norfolk Island office of the Australian National Parks and Wildlife Service has also been used. This has included letters from Mr. M. Gray of the Australian Museum and Barbara York Main of the University of Western Australia. General life history material and other notes have been extracted from Mascord (1980) and Child (1968). Much of the information presented here is based on information not collected from Norfolk Island and so considerable scope is available for detailed study of Norfolk Island spiders. The information presented here is merely a collation of information available to me and does not attempt to specifically review the spider fauna. It is hoped that this publication will further encourage the interest in spiders on Norfolk Island. Information prepared by N. Hermes, August 1985.

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CHARACTERISTICS OF THE FAMILIES OF SPIDERS  
THAT OCCUR ON NORFOLK ISLAND

- AMAUROBIIDAE                      House Spiders                      (1 species)  
Possess a plate-like structure at the rear of the underside of the rear section of the body and one or two rows of comb-like bristles on the 6th segment of the hind legs. Web is a loose untidy sheet of web.
- DYSDERIDAE                      Six-eyed Spiders                      (1 species)  
Six eyes arranged in an oval on the front of the head. Huge fangs. Hunt at night and are concealed during daylight in silk nets under bark or stones.
- DRASSIDAE                      Night Hunters                      (2 species)  
Night hunting spiders with flattened or cylindrical bodies. Spinnerets are wide apart. Do not build webs.
- PHOLCIDAE                      Daddy-long-legs                      (1 species)  
Exceptionally long legs. Front section of body flat and circular, rear section long and cylindrical. Eight eyes on the front of the head grouped together into three clusters.
- THERIDIIDAE                      Lattice Web Spiders                      (9 species)  
Small to medium spiders with globular abdomens. Eyes in two rows of four. Build irregular lattice webs under loose stones amongst twigs etc. Spider usually stands upside-down near the top of the web.
- ARGIOPIDAE                      Wheel web Builders                      (9 species)  
Upright web on trees, shrubs and buildings. Usually squat, hairy spiders which build the web at night and remove it in the morning. There are some notable Norfolk exceptions however.
- CLUBIONIDAE                      Ant-mimicking Spider                      (2 species)  
Like the Drassids. They have two rows of four eyes and nearly equal in size. Spinnerets are close together. Do not build a web.