

# Report of the 1971 LOCH MORAR SURVEY

Including a summary of all sighting reports collected to date



©Loch Morar Survey

35 p

# LOCH MORAR SURVEY

## 1971 REPORT

The Committee of the Loch Morar Survey have pleasure in presenting their report on the work of the Survey in 1971.

The chief value of the 1971 Survey has been in the obtaining of further information of general interest about the natural history of the area, together with additional evidence tending to confirm previous reports of the existence of a large unidentified species in the loch itself. Full details are given in the body of this report.

The eight new eyewitness accounts recorded (three from earlier years and five since the 1970 report was published) add little new information; but Lord Glendevon's encounter is, as far as we know, unique, and Dr. Cooper's sketch is also, as far as we know, unique in being the only painting actually done by a professional artist during a sighting.

A summary of all the eyewitness evidence obtained to date, covering the period 1887—1971, is contained in this report.

The 1971 operational results can only be described as disappointing, although volunteers worked devotedly and one interesting visual sighting resulted. The committee accept that after two unsuccessful attempts to obtain photographic evidence it is necessary to reconsider the operational side of the Survey's work. With weather and chance playing such a prominent part, and operating conditions so difficult, it is questionable whether the outlay of so much time, effort, equipment and money on a purely passive method of investigation is any longer justified.

More active means involving the use of underwater search techniques are therefore being considered, and it is hoped that these can be used together with supporting camera watch for a third and possibly final attempt to solve the problem in 1972.

The financial statement shows that in 1971 the Survey received donations amounting to £351.33 compared with £20 from a single donor in 1970. This reflects the gradual building up of confidence in, and support for, the work of the Survey, an encouraging development which is deeply appreciated. It is hoped that the plans for 1972, which will be announced as soon as finalised, will justify the continuance of such support.

The Committee wish to record their sincere thanks to all who have helped the Loch Morar Survey in 1971 in any way whatsoever.

**Enquiries: Loch Morar Survey, 80 Palewell Park, London, SW14 8JH (tel.: 01-876 7124).**

**1971 Committee:** Neil Bass, Ph.D.; David Connell, B.Sc.; Alan Dance (*Hon. Treasurer*); Tim Dinsdale, A.R.Ae.S.; Allan Frake, B.Sc.; Peter Head, Ph.D.; Graham Martin, B.Sc., Dip.Cons.; Elizabeth Montgomery Campbell, M.J.I.; Ivor Newby; Philip Pugh, Ph.D.; Patrick Smith, B.Sc.; David Solomon, Ph.D.

**1971 Survey Members (July 10—August 21):** Jenny Allen, Holly Arnold, Robert Badger, Dorothea Baker, Rod Bell, Ronald Binns, B.A., Janet Bland, Catherine Bowman, B.Sc., Alan Butterworth, B.Sc., Helen Dady, Diane Durham, B.Sc., Peter Dyson, B.Sc., E. Easton, Christine Elmer, J. Hooker, Christine Hunter, P. Jenkins, Ian Johnson, B.Sc., Peter Lawrie, Christine Lock, Peter Matthiessen, B.Sc., Nigel Mill, Dick Raynor, Jane Thomas, Jean Whyte, B.A.

**1972 Committee:** Holly Arnold; David Connell, B.Sc.; Alan Dance (*Hon. Treasurer*); Tim Dinsdale, A.R.Ae.S.; Graham Martin, B.Sc., Dip.Cons.; Elizabeth Montgomery Campbell, M.J.I.; Peter Matthiessen, B.Sc.; Dick Raynor; Patrick Smith, B.Sc.; David Solomon, Ph.D.; Jean Whyte, B.A.

### PUBLICATIONS

**1970 Report.** A few copies only are available, to applicants with a special interest in this field. **1971 Report.** Copies available from the Loch Morar Survey at 25p post free (U.K. only). Overseas enquirers will be charged postage pro rata.

**The Search for Morag** by Elizabeth Montgomery Campbell and David Solomon, B.Sc., Ph.D., with a foreword by the Rt. Hon. Lord Glendevon, P.C. (Tom Stacey, April 1972). Price £1.90. Full details of all sightings to date are included in the book. Copies may be ordered direct from the Survey at the above address for £2 to include postage and packing (cheques and P.O.s payable to Loch Morar Survey).

*The cover design for this report kindly prepared and donated by Mr. Roger Latham.*

## BIOLOGICAL SECTION

The Biological Section was planned this year to complete a general survey of the loch and its environs, and to a large extent this was done. No further work on phytoplankton was carried out, but otherwise the findings of last year were confirmed, and much new information obtained. The identification of some of last year's samples is given here, as the findings were not available in time for the 1970 report. Complete lists of plant and animal species found so far by the Survey (with the exception of phytoplankton) are also included.

During the survey it was observed that sheep had been grazed on several of the wooded islands in the loch. As these islands are cut off from the mainland and represent one of the best surviving examples in Scotland of the original Caledonian Forest, it is to be hoped that it will be possible to prevent further grazing, which could well destroy the forest by preventing the growth of new trees.

### ZOOPLANKTON

Plankton hauls were again made in most regions of the loch. No attempts at quantitative sampling were possible.

Since the 1970 report was published some of the 1970 samples have been examined by Mr. W. Smyly of the Freshwater Biological Association. His findings are discussed below with this year's results.

#### Copepods

In 1970 three species of unidentified cyclopids were found. This year only one species was caught, which proved to be *Cyclops strenuus* var. *abyssorum* (Sars). Three different coloured individuals were found; black, red and almost colourless. It is possible that one of the other species previously reported was in fact one of these varieties. Mr. Smyly identified the above species and *Cyclops fimbriatus* from the 1970 samples.

The species of "unidentified" calanoid was again found and identified as *Diaptomus gracilis*. This species was recorded by Murray and Pullar (1910).

#### Cladocera

The most abundant cladoceran in the loch, recorded as *Bosmina coregoni* in last year's survey, was again found and identified further as being *B. coregoni* var. *longispina* (Leydig). This identification was confirmed by Dr. J. P. Harding, Keeper of Zoology at the Natural History Museum.

Neither the cyprid species or *Alona affinis*, recorded last year, were found, but a new species, *Eurycerus lamellatus*, was found in small numbers near the W. end of the loch. Otherwise the species composition corresponded with the 1970 catch.

Mr. Smyly also reported finding *Alonopsis elongata* in the 1970 hauls.

#### Others

In 1970 some damaged specimens of a crustacean believed to be the rare Mysid *Mysis relicta* were collected in a haul at the W. end of the loch. They were unfortunately disposed of before definitive identification could be made. A special search was therefore made this year to obtain more specimens, but none was seen at any time. This species has not been recorded in Scotland.

Lastly, several species of mites were found in the plankton, and are awaiting identification.

### FISH

Routine samples were again collected from various parts of the loch, by both angling and long-lines. No new species were recorded but all those previously observed were found. Growth studies were again made on a few species; trout, eels and stickleback.

The relationship between age (determined from the annual rings on the scales) and length of trout in Loch Morar is shown on the accompanying graph. The growth rate is fairly steady. Also shown on the graph are two lines A and B. These represent the growth of fish of the fastest (A) and slowest (B) growing populations of trout found in a survey of northern Scottish loch trout by Campbell (1971).\* The growth rate of Morar trout appears to be about average for lakes in the area.

The results for the growth of eels are not yet available.

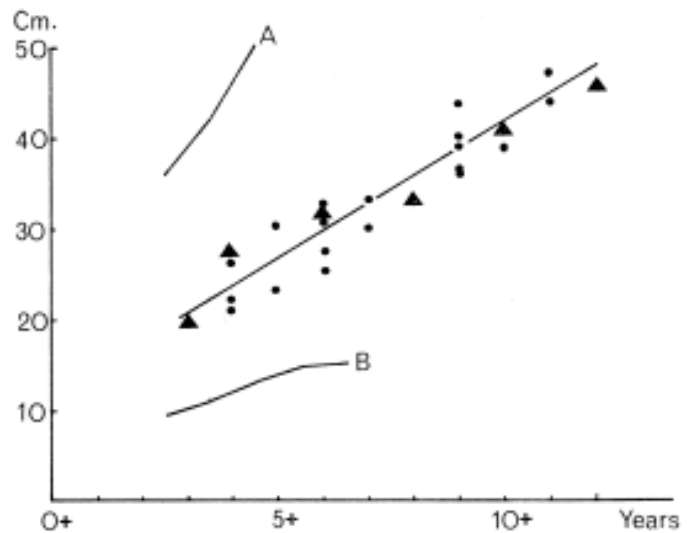
The growth rate of the few sticklebacks collected, determined from the otoliths, small bony structures in the ear, appears to be average for British waters.

Most specimens of stickleback collected were heavily infested with the tapeworm *Schistocephalus solidus*. Few of the trout caught were carrying the tapeworm parasites from which the fish collected last year were often suffering.

\* J. Fish Biol. 3(1) 1-28.

Relationship between age and length of brown trout in Loch Morar. The two lines A and B represent the growth of the fastest growing and slowest growing populations recorded from the Highlands by Campbell (1971).

- ▲ = 1970 results.
- = 1971 results.



### STUDY OF THE BENTHIC FAUNA OF LOCH MORAR

Samples of material from the bottom of the loch were taken at various depths using a dredge. Studies of the loch bed in shallower areas and near the mouth of streams were concentrated on this year, but even in these shallower areas the numbers of species and individuals were small.

The species found in 1970 were again seen to be the most abundant, though the Mollusc population seemed to be slightly increased. The observation was again made that the shells on these snails appeared to be very soft due to the virtual absence of calcium in the waters of the loch.

Core samples were taken from the loch bed at a depth of 45 metres downwards. These samples are still being analysed but it is not thought that any significant findings will result.

Species	Station							Stations
	1	2	3	4	5	6	7	
<b>Tubificidae</b> indet.	3							1
<b>Hirudinae</b>								
<i>Glossiphonia complanata</i>	1		1		3			
<i>Haemopsis sanguisuga</i>	1							
<b>Mollusca</b>								
<i>Pisidium nitidum</i>	2	1						
<i>Ancylus fluviatilis</i>	1	1	2			23		
<i>Limnea pereger</i>	3	4	6	1	6			
<b>Trichoptera</b>								
<i>Setodes argentipunctella</i> larva(?)	15	8	6	10	8	11	2	
<i>Limnophilus flavicornis</i> larva (?)			1	2				
<b>Ephemeroptera</b>								
<i>Nymph</i> indet.	1							
<b>Coleoptera</b>								
<i>Agabus conspersus</i> larva	7	4		2				
<b>Hydracarina</b>								
<i>Limnochares aquaticus</i>	3	1			1			
<i>Limnesia fulgida</i>	1							
<b>Diptera</b>								
<i>Tanytus</i> larvae	1	1						1
<i>Chironomus</i> larva								1



**LIST OF ANIMAL SPECIES RECORDED IN THE MORAR CATCHMENT AREA  
BY THE SURVEY**

**ANNELIDA**

**Hirudinea** (leeches)  
*Haemopsis sanguisuga*  
*Glossiphonia complanata*  
*Erpobdella stagnalis*

**MOLLUSCA**

*Ancylus fluviatilis*  
*Linnaea pereger*  
*Planorbis cristata*  
*Margaritiseria margaritiseria*  
*Pisidium nitidum*

**ARTHROPODA**

**Crustacea**

**Cladocera**

*Bosmina coregoni* var. *longispina*  
*Alona affinis*  
*Alonopsis elongata*  
*Eurycerus lamellatus*  
*Holopedium gibberum*  
*Leptodora kindtii*  
*Polyphemus pediculus*  
*Bythotrephes longimanus*

**Copepoda**

*Cyclops strenuus* var. *abyssorum*  
*Cyclops fimbriatus*  
*Diaptomus gracilis*

**Insecta**

**Odonata** (Dragonflies)

*Aeschna* sp.  
*Coenagrion puella*  
*Cordulogaster boltonii*

**Lepidoptera** (Butterflies)

*Pieris* sp. (Small or green veined white)  
*Erebia aethiops* (Scotch Argus)  
*Mesoacidalia aglaja* (Dark green fritillary)  
*Coenonympha tullia* (Large heath)  
*C. pamphilus* (Small heath)  
*Maniola jurtina* (Meadow brown)  
*Hippardria semele* (Grayling)

**CHORDATA**

**Pisces**

Salmon	}	<i>Salmo salar</i>
Sea trout		<i>Salmo trutta</i>
Brown trout		
Char		<i>Salvelinus alpinus</i>
Eel		<i>Anguilla anguilla</i>
Minnow		<i>Phoxinus phoxinus</i>
Three spined stickleback		<i>Gasterosteus aculeatus</i>

**Amphibia**

Smooth newt	<i>Triturus vulgaris</i>
Common frog	<i>Rana temporaria</i>
Common toad	<i>Bufo bufo</i>

**Reptilia**

Slow worm	<i>Anguis fragilis</i>
-----------	------------------------

**Aves**

**Gaviiformes**

Diver	<i>Gavia</i> sp.
-------	------------------

**Pelecaniformes**

*Cormorant or Shag	<i>Phalacrocorax</i> sp.
--------------------	--------------------------

**Ardeiformes**

*Heron	<i>Ardea cinerea</i>
--------	----------------------

**Anseriformes**

*Eider	<i>Somateria mollissima</i>
*Red-breasted Merganser	<i>Mergus serrator</i>
*Goosander	<i>M. merganser</i>
*Mallard	<i>Anas platyrhynchos</i>

**Falconiformes**

Golden Eagle	<i>Aquila chrysaetos</i>
*Buzzard	<i>Buteo buteo</i>
Peregrine	<i>Falco peregrinus</i>
*Kestrel	<i>Falco tinnunculus</i>

**Charadriiformes**

*Oystercatcher	<i>Haematopus ostralegus</i>
Common Sandpiper	<i>Tringa hypoleucos</i>
*Great Black-backed Gull	<i>Larus marinus</i>
Lesser Black-backed Gull	<i>L. fuscus</i>
*Herring Gull	<i>L. argentatus</i>
*Common Gull	<i>L. canus</i>
*Black-headed Gull	<i>L. ridibundus</i>

**Columbiformes**

*Wood Pigeon	<i>Columba palumbus</i>
--------------	-------------------------

**Strigiformes**

*Tawny Owl	<i>Strix aluco</i>
------------	--------------------

**Passeriformes**

Swallow	<i>Hirundo rustica</i>
Sand Martin	<i>Riparia riparia</i>
*Raven	<i>Corvus corax</i>
*Hooded crow	<i>C. cornix cornix</i>
*Rook	<i>C. frugilegus</i>
*Jackdaw	<i>C. monedula</i>
*Blue Tit	<i>Parus caeruleus</i>
*Coal Tit	<i>P. ater</i>
*Tree Creeper	<i>Certhia familiaris</i>
*Wren	<i>Troglodytes troglodytes</i>
*Dipper	<i>Cinclus cinclus</i>
*Song Thrush	<i>Turdus philomelos</i>
*Blackbird	<i>T. merula</i>
Wheatear	<i>Oenanthe oenanthe</i>
*Stonechat	<i>Saxicola torquata</i>
*Robin	<i>Erithacus rubecula</i>
Willow Warbler	<i>Phylloscopus trochilus</i>
*Dunnock	<i>Prunella modularis</i>
*Meadow Pipit	<i>Anthus pratensis</i>
*Rock Pipit	<i>A. spinoletta</i>
*Pied Wagtail	<i>Motacilla alba yarrellii</i>
*Grey Wagtail	<i>M. cinerea</i>
*Starling	<i>Sturnus vulgaris</i>
*Chaffinch	<i>Fringilla coelebs</i>
*Yellowhammer	<i>Emberiza citrinella</i>
Reed Bunting	<i>E. schoeniclus</i>
*House sparrow	<i>Passer domesticus</i>

\*Reported by St. Andrews Survey.

**Mammalia**

Common shrew	<i>Sorex araneus</i>
Water shrew	<i>Neomys fodiens</i>
Rabbit	<i>Oryctolagus cuniculus</i>
Wood mouse	<i>Apodemus sylvaticus</i>
Bank vole	<i>Clethrionomys glareolus</i>
Field vole	<i>Microtus agrestis</i>
Red deer	<i>Cervus elaphus</i>
*Domestic cow	<i>Bos taurus</i>
*Domestic sheep	<i>Ovis aries</i>

\*Although not part of the natural fauna, undoubtedly affect the ecology of the area.

LIST OF PLANT SPECIES RECORDED IN THE MORAR CATCHMENT AREA BY THE SURVEY

Family	Latin Name	Common Name	Bog	Bracken	Woods	Other areas
<i>Nymphaeaceae</i>	<i>Nymphaea alba</i>	White Water-Lily				Lochan
<i>Polygalaceae</i>	<i>Polygala serpyllifolia</i>	Thyme-leaved Milkwort	+	+		
<i>Hypericaceae</i>	<i>Hypericum tetrapetenum</i>	Square-stalked St. John's Wort	+			
<i>Oxalidaceae</i>	<i>Oxalis acetosella</i>	Wood Sorrel			+	
<i>Rosaceae</i>	<i>Potentilla erecta</i>	Common Tormentil	+	+	+	
	<i>Rubus fruticosus</i>	Blackberry		+		
	<i>Sorbus aucuparia</i>	Rowan			+	
<i>Crasnolaceae</i>	<i>Sedum anglicum</i>	English Stonecrop				Rocks in estuary
<i>Droseraceae</i>	<i>Drosera anglica</i>	Great Sundew	+			
	<i>D. rotundifolia</i>	Common Sundew	+			
<i>Araliaceae</i>	<i>Hedera helix</i>	Ivy			+	
<i>Caprifoliaceae</i>	<i>Lonicera periclymenum</i>	Honeysuckle			+	
<i>Rubiaceae</i>	<i>Galium saxatile</i>	Heath Bedstraw	+	+	+	
<i>Valerianaceae</i>	<i>Valeriana officinalis</i>	Marsh Valerian				Beside burn
<i>Lobeliaceae</i>	<i>Lobelia dortmanna</i>	Water Lobelia				Lochan
<i>Ericaceae</i>	<i>Calluna vulgaris</i>	Ling		+	+	
	<i>Erica tetralix</i>	Cross-leaved Heath	+			
	<i>Vaccinium myrtillus</i>	Bilberry			+	
<i>Plumbaginaceae</i>	<i>Armeria maritima</i>	Thrift				Hillside
<i>Scrophulariaceae</i>	<i>Digitalis purpurea</i>	Foxglove		+		
	<i>Melampyrum pratense</i>	Common Cow Wheat			+	
	<i>Pedicularis palustris</i>	Red Rattle				Hillside bog
<i>Lentibulariaceae</i>	<i>Pinguicula lusitanica</i>	Pale Butterwort	+			
	? <i>P. vulgaris</i>	Common Butterwort	+			
<i>Labiatae</i>	<i>Scutellaria galericulata</i>	Skullcap				Shore of estuary
<i>Myricaceae</i>	<i>Myrica gale</i>	Bog Myrtle	+			
<i>Betulaceae</i>	<i>Betula pendula</i>	Birch	+	+	+	
<i>Fagaceae</i>	<i>Quercus petraea</i>	Sessile Oak	+		+	
<i>Salicaceae</i>	<i>Salix</i> spp.	Willows	+			
<i>Orchidaceae</i>	<i>Dactylorhiza maculata</i>	Heath-spotted Orchid	+			
<i>Liliaceae</i>	<i>Endymion non-scriptus</i>	Bluebell			+	
	<i>Narthecium ossifragum</i>	Bog Asphodel	+			
<i>Potamogetonaceae</i>	<i>Potamogeton polygonifolius</i>	Bog Pondweed	+			Burn
<i>Cyperaceae</i>	<i>Eriophorum angustifolium</i>	Common Cotton Grass	+			
<i>Graminaceae</i>	<i>Agrostis tenuis</i>	Common Bent		+		
	<i>Deschampsia caespitosa</i>	Tufted Hair Grass	+			
	<i>Festuca tenuifolia</i>	Fine-leaved Sheep's Fescue	+			
	<i>Melica uniflora</i>	Wood Mellick	+		+	
	<i>Molinia caerulea</i>	Purple Moor Grass	+			
	<i>Poa annua</i>	Annual Meadow Grass		+		
	<i>P. nemoralis</i>	Wood Meadow Grass			+	

	Small Head	Long Neck	Body		Colour	Range	Loch Surface	Weather	Time	Month	Seen From	
			Humps	Length								
1887 James MacDonald	1		3						Midnight	January	Boat	
Late 19 "Old People"	2		2 or 3/3						Dusk		Land	
1895 Mrs. Brinckman	3		1						Dusk	Summer	Boat	
Early 20 Visitor	4		1					Sunny	Day	Late Summer	Land	
1931 Lord Glendevon	5		(Rod and line taken)						? Afternoon	September	Boat	
1934 Charles MacDonald	6	Eel-like but squarer	3-8 ft.		Black	40-50 yds.	Flat calm		4-5 p.m.	March	Boat	
1948 John Gillies and Noel O'Donnell	7		75	20 ft.	Black	½ mile	Flat calm	Sunny	Dusk	July	Boat	
1940 Angus Cameron I to Duncan McDonell	8		1		Black	1 mile					Land	
1960 Mrs. Parks	10	Snake-like	3 ft.									
1958 Dr. Cooper	11		1	7 1/2-15 ft.			Ripple	Sunny	Day		Land	
1963 or 1964 Mr. and Mrs. Malcolm	12		1	14 ft.	Greeny-brown	1 mile	Ripple	Sunny	11.15 a.m.	July	Land	
1964 Mr. and Mrs. Patmore	13		3	30-40 ft.	Dirty-grey	200 yds.	Flat calm	Sunny	1 p.m.	May	Land	
1964 William Fotheringham & Alexander Easton	14		1	(seen end on)	Black	200 yds.	Flat calm	Sunny	2-3 p.m.	August	Land	
1966 to 1969 Capt. and Mrs. Menzies	15		73	40 ft. (underwater patches)	Yellowish-grey	300 yds.					Land	
1968 John MacVarish	16	Flat, Snake-like	5-6 ft.		Very dark	300 yds.	Flat calm	Sunny	10 a.m.	August	Boat	
1969 Robert Duff	17	Snake-like	Not seen	20 ft.	Grey-brown	16 ft.	Flat calm	Sunny		July	Boat	
1969 Bertie MacLean	18			(underwater shape)	Greeny	20 ft.	Flat calm	Sunny		July	Boat	
1969 James Hanratty and John MacVarish	19		3	30 ft.	Light brown	Less than 500 yds.	Flat calm	Sunny	Noon	August	Boat	
1969 Duncan McDonell and William Simpson	20	Snake-like	Not seen	3	25-30 ft.	Dirty brown	Alongside	Flat calm	Sunny	Dusk	August	Boat
1969 John Clement and Mrs. Parks	21		73	70 ft. (water disturbance)		1 mile	Flat calm		Day	August	Land	
1970 Mrs. Parks	22		3	30 ft.	Black	1 mile	Flat calm		Afternoon	February	Land	
1970 Mr. and Mrs. T. E. J.	23			(wake)		300 yds.	Flat calm	Sunny	7.45 a.m.	May	Land	
1970 Dr. Bass and others	24		1		Black	300 yds.	Ripple	Cloudy	2 p.m.	July	Land	
1970 Mr. and Mrs. Malcolm	25			(water disturbance)		Up to 1 mile	Ripple	Clear	9.10 a.m.	July	Land	
1970 Alan Butterworth	26		1	15 ft.	Dark	1 1/2 miles	Flat calm	Sunny	11.10 a.m.	August	Land	
1970 John MacVarish	27			(water disturbance)		30 yds.	Flat calm	Sunny	5 p.m.	August	Boat	
1970 Charles Fishburne and Ian Mitchell	28		3	"Large" (seen end on)	Black	30-50 yds.	Flat calm	Sunny	Dusk	September	Boat	
1970 Angus Cameron II	29		1		Brown	Over 1 mile	Flat calm		Day	November	Land	
1970 Three schoolchildren	30		2			½ mile	Calm		Dusk	December	Land	
1971 The Gillies family	31	Barely distinguishable	3-4 ft.	2 or 3	30 ft.	Black	½ mile	Flat calm	Sunny	11 a.m.	April	Land
1971 Sween MacDonald	32			(wake)		25-225 yds.	Calm	Cloudy	4 p.m.	August	Land	
1971 Ian Johnson and Ronald Binns	33			(wake)		10 yds.	Flat calm	Cloudy	11.45 p.m.	August	Boat	

## OPERATIONAL SECTION

Three camera sites were maintained during the Survey, in similar positions to those set up in 1970. These were at Bracora, on the North shore just East of the islands; at Swordlands, about halfway along the North shore of the loch; and at Meoble, about two-thirds of the way along the South shore.

Cameras used included a Newman Sinclair 35 mm. cine camera; a 35 mm. still camera with 36-inch lens; and two Bolex 16 mm. cine cameras. The sites were manned by volunteers working for anything from a few hours to a week at a time. Except when prevented by shortage of manpower or equipment, or by extremely inclement weather, watch was maintained from 5—6 a.m. until 9.30 or 10 p.m. daily.

Despite a very high standard of perseverance and effort, no film was obtained of the phenomena, and no sightings were made from any of the camera sites.

One interesting visual sighting was obtained by two members who undertook a night drift in the Survey boat, and this is included under "Sightings."

During the Survey, photographs of the loch bed were taken by Professor Robert Rines and a team from the Academy of Applied Science, Massachusetts. A stroboscopic camera was used, of the type supplied to the Cousteau expeditions. Excellent colour pictures were obtained, giving a range of at least 60 feet. Members of the Survey also carried out preliminary depth sounding trials with sonar equipment loaned by the Loch Ness Investigation.

## SIGHTINGS

Before listing the eyewitness evidence obtained since the 1970 Report was published, it may be useful to summarise the information given in that Report.

The 1970 Report listed 27 eyewitness accounts describing or indicating the presence of a large aquatic beast in Loch Morar. The first was dated January 1887 and the last September 1970. Two thirds of the incidents had taken place within the past six years.

The reports tallied closely with descriptions of the Loch Ness monster, falling into the same four basic categories: (a) small head on long neck (b) single "upturned boat" type of hump (c) several humps (d) water disturbance. Maximum overall length was 40 feet. Colours varied from greyish/greenish brown to dark or black.

High speeds creating a large wash were reported, as well as a slow cruising motion. Several underwater sightings were recorded, made possible by the unusual clarity of the Morar water.

Witnesses included both local people and regular visitors. All were familiar with conditions at the loch. Two of the stories were still unconfirmed, but the remaining 25 had passed the Survey's evaluation test. A full description of the evaluation methods and additional background information were included in the Report.

### 1971 Results

Eight new accounts have been received since the 1970 Report was completed. Dates are 1931, 1958, 1964, 1970 (2) and 1971 (3). In addition, further first hand evidence has been received concerning a report dated 1934 which was included as no. 5 of the 1970 Report.

We have been unable to obtain first hand confirmation of the two unconfirmed stories included as nos. 19 and 27 in the 1970 Report and these have therefore been deleted from the record for the time being, leaving the total number of reports accepted by the Survey at 33.

A chart showing these 33 accounts in their date order and with new serial numbers is opposite. Summaries of new evidence received during the past twelve months are as follows.

## I CONFIRMATION OF PREVIOUS ACCOUNT

### 1934—Charlie MacDonald (No 5 of 1970).

In a letter to E.M.C. Mr. MacDonald, now retired and living in Perthshire, confirmed this sighting. There are two discrepancies (not surprising as the reports are 40 years apart and the first was recorded by Father Cyril Dieckhoff and not Mr. MacDonald himself). Mr. MacDonald states the head and neck were eight feet in length (longer than in the first report) and that he was in a small boat, not on land as Father Cyril thought. The neck was one foot in diameter, head eel-like but more square in shape, colour black, range 40—50 yards. The sighting lasted approximately one minute.

## II NEW ACCOUNTS

### (a) September 1931—The Rt. Hon. Lord Glendevon, P.C. (then Lord John Hope).

Lord Glendevon is a former Under Secretary of State for Scotland and has known the Highlands all his life. In a written statement he recorded an experience which took place when he was aged 19 and a guest of Sir Berkeley Sheffield, at that time owner of the Meoble Estate.





*Dr. Cooper's sketch.*

Together with his twin brother, Mr. John Sheffield and a ghillie, he was fishing from a boat near Meoble. He was using a fairly long trout rod with a metal spinner as bait. He states: "Suddenly something took the line which was heavier than I have experienced before or since. The line was taken directly downwards at such a pace that it would have been madness to try and stop it with my fingers. In a very few seconds the whole line including the backing had gone and the end of the rod broke. Whatever the animal was, its enormous weight had prevented me from being able to lift up the rod at all.

"I was fairly frightened during the experience as I could not believe that anything could be so appallingly heavy. I may say that I have landed a 76 lb. mahseer in India. It is true that on that occasion I was fishing with the equivalent of a salmon rod but, allowing for that, I believe that whatever took me in Loch Morar was something much heavier than that."

Lord Glendevon records that the ghillie's reaction was to take the incident very seriously and suggest that they had better go home.

**(b) September 1958—Dr. George R. Cooper, F.R.S.A., F.I.A.L.**

Dr. Cooper is a distinguished scientist, author, painter and photographer. After reading Press reports of the 1970 Survey he wrote giving information about the following incident.

Dr. Cooper was staying with his family at Morar, and on this particular morning was sketching the loch from a point on the north shore near the mouth of Allt an Loin, almost opposite Eilean Ban, the westernmost island. The surface of the loch was fairly smooth with occasional drifts of air under 5 m.p.h. coming from the west.

As he sketched from 10.30 a.m. to 12.30 p.m., he was aware of what he took to be a submerged log drifting very slowly westwards. It had been near the headland when first seen and gradually described a flattened S course, drifting inside the island. After about half an hour he became sufficiently aware of it to include it in his sketch.

The object passed between the shore and the island at a range of about 50 yards from the Coopers. When it was about midway with the island Dr. Cooper looked up to find that it had vanished—"one minute it was there, the next it was not." His 15 year old daughter Susan said that she had seen it go down with a swirl of water.



Unfortunately Mr. Gillies' telescope was away being mended, but he went indoors for his camera and took two photographs from an upstairs window. Shortly afterwards the creature lowered its head, the whole body straightened out, and it sank straight down. Mr. Gillies estimated that from the time his son first saw it to the time it submerged would have been about eight minutes.

Mr. Gillies had little hope that the photographs would show anything and had not bothered to have them developed. He willingly handed them over to the Survey however. When they were developed they were indeed of little value. The loch appeared as a very distant, narrow strip of dark water reflecting the hills opposite. Against this background and at that distance, a dark object could not have been distinguished. But there did appear a faint pale streak indicating a patch of disturbed water consistent with a large object having broken surface at that point, and this to a trained observer would bear out Mr. Gillies' story though it certainly proves nothing.

**(g) August 8th 1971—Sween MacDonald.**

(For 18 years boatman to the Meoble estate. No previous sightings of anything unusual on the loch. Formerly sceptical of other reports).

*Time* 4 p.m. *Weather:* Rain just stopped. *Surface:* Flat glass calm in Meoble Bay in the period before the wind veered from S. to S.W.

Coming out of the Meoble Bay boathouse where he had been working, Mr. MacDonald saw a small disturbance on the surface of the water, 25 to 30 yards from the end of the jetty. He thought at first it might be two or three salmon playing, or a duck having caught a fish under water. As he watched, some object moved away, barely breaking the surface, and making a white wash as it travelled. He could hear the swish of the water thrown aside as it moved. Speed estimated at 10 knots. The shape of the front of the wash suggested to him that it was being made by a blunt-ended object; it was bigger, faster and quite different from the sharp-fronted V wake sometimes left by salmon, with which he was very familiar. The wake followed a zig-zag course, moving first to the left, then turning to the right, then turning again and keeping straight on for about 200 yards before he lost sight of it. (Verbal report to E.M.C. and Allan Frake).

**(h) August 10th 1971—Ian Johnson, B.Sc. (biologist) and Ronald Binns, B.A.**

(Survey members and experienced both at Loch Ness and Loch Morar).

*Time:* 11.45 p.m. *Weather:* clear, full moon obscured by clouds. No rain or wind. *Surface:* Flat calm. A sighting report was filled in the following day.

The two men were proceeding to a night drift in the Survey boat, a Zodiac inflatable. Just after passing through the main channel between the mainland and the easternmost island, both men noticed a wake travelling parallel with their boat at a distance of about 10 yards to port. The Zodiac was travelling at full throttle, a known speed of 15 knots, and from this they estimated the speed of the wake to be approximately 12 knots. The wake was vividly defined against the black water and they could see nothing to account for it. From the angle at which they saw it, sitting in the boat, it appeared almost linear in appearance (unlike the broad V-shape of a duck's wake). Ian Johnson compared it to the wake created by a small sailing dinghy in a Force 2 wind. They watched it for about 10 seconds as their boat overhauled it, and then swerved the boat towards it. Their own wake then merged with it, and in the darkness and confused loch surface they lost sight of the other wake.

They circled the area looking to see if there was anything to account for the phenomenon but saw nothing more. Ian Johnson considered that the wake was caused by a relatively fast moving submerged animal but that he did not have sufficient experience of the loch to give an opinion as to whether or not it could have been caused by a known inhabitant of the loch.

The above descriptions (sightings g and h) were submitted to the Scottish headquarters of the Nature Conservancy for comment, but it was stated in reply that whereas several alternative explanations might be suggested, it was not possible to give a definite opinion, and it was thought to be extremely unscientific to try and hazard a guess of the cause in either of these incidents.

Since the witnesses in both cases were experienced and reliable—and in the case of Sween MacDonald, the incident was sufficiently impressive to change him from a sceptic of 18 years' standing to a believer in the existence of some large creature inhabiting the loch—both incidents have been accepted for inclusion in the Survey's record of sighting reports. It is worth noting that the maximum speed of an otter is said to be 6–7 m.p.h. (5–6 knots). (C. J. Harris, *Otters*, Weidenfeld and Nicolson, 1968).

**Conclusion**

The occurrence of five sightings in the period covered by this report (the 14 months from October 1970 to December 1971) would appear to be normal. There has certainly been no suspicious upsurge of reports such as was forecast by sceptics when the Survey's 1970 report was published. The four reports by Morar residents were given willingly to the Survey, but only after the witnesses had been approached and asked to give evidence; in no case did they approach the Survey voluntarily.

It is considered that the number, nature and manner of presentation of these reports confirms the pattern established previously, and corroborates the evidence which other witnesses have given. The reports do not add any significant new information.

The Survey records its appreciation to these witnesses, and to Lord Glendevon, Dr. Cooper, Mr. Charles MacDonald and Mr. and Mrs. Patmore, for their co-operation.

Unfortunately Mr. Gillies' telescope was away being mended, but he went indoors for his camera and took two photographs from an upstairs window. Shortly afterwards the creature lowered its head, the whole body straightened out, and it sank straight down. Mr. Gillies estimated that from the time his son first saw it to the time it submerged would have been about eight minutes.

Mr. Gillies had little hope that the photographs would show anything and had not bothered to have them developed. He willingly handed them over to the Survey however. When they were developed they were indeed of little value. The loch appeared as a very distant, narrow strip of dark water reflecting the hills opposite. Against this background and at that distance, a dark object could not have been distinguished. But there did appear a faint pale streak indicating a patch of disturbed water consistent with a large object having broken surface at that point, and this to a trained observer would bear out Mr. Gillies' story though it certainly proves nothing.

**(g) August 8th 1971—Sween MacDonald.**

(For 18 years boatman to the Meoble estate. No previous sightings of anything unusual on the loch. Formerly sceptical of other reports).

*Time* 4 p.m. *Weather:* Rain just stopped. *Surface:* Flat glass calm in Meoble Bay in the period before the wind veered from S. to S.W.

Coming out of the Meoble Bay boathouse where he had been working, Mr. MacDonald saw a small disturbance on the surface of the water, 25 to 30 yards from the end of the jetty. He thought at first it might be two or three salmon playing, or a duck having caught a fish under water. As he watched, some object moved away, barely breaking the surface, and making a white wash as it travelled. He could hear the swish of the water thrown aside as it moved. Speed estimated at 10 knots. The shape of the front of the wash suggested to him that it was being made by a blunt-ended object; it was bigger, faster and quite different from the sharp-fronted V wake sometimes left by salmon, with which he was very familiar. The wake followed a zig-zag course, moving first to the left, then turning to the right, then turning again and keeping straight on for about 200 yards before he lost sight of it. (Verbal report to E.M.C. and Allan Frake).

**(h) August 10th 1971— Ian Johnson, B.Sc. (biologist) and Ronald Binns, B.A.**

(Survey members and experienced both at Loch Ness and Loch Morar).

*Time:* 11.45 p.m. *Weather:* clear, full moon obscured by clouds. No rain or wind. *Surface:* Flat calm. A sighting report was filed in the following day.

The two men were proceeding to a night drift in the Survey boat, a Zodiac inflatable. Just after passing through the main channel between the mainland and the easternmost island, both men noticed a wake travelling parallel with their boat at a distance of about 10 yards to port. The Zodiac was travelling at full throttle, a known speed of 15 knots, and from this they estimated the speed of the wake to be approximately 12 knots. The wake was vividly defined against the black water and they could see nothing to account for it. From the angle at which they saw it, sitting in the boat, it appeared almost linear in appearance (unlike the broad V-shape of a duck's wake). Ian Johnson compared it to the wake created by a small sailing dinghy in a Force 2 wind. They watched it for about 10 seconds as their boat overhauled it, and then swerved the boat towards it. Their own wake then merged with it, and in the darkness and confused loch surface they lost sight of the other wake.

They circled the area looking to see if there was anything to account for the phenomenon but saw nothing more. Ian Johnson considered that the wake was caused by a relatively fast moving submerged animal but that he did not have sufficient experience of the loch to give an opinion as to whether or not it could have been caused by a known inhabitant of the loch.

The above descriptions (sightings g and h) were submitted to the Scottish headquarters of the Nature Conservancy for comment, but it was stated in reply that whereas several alternative explanations might be suggested, it was not possible to give a definite opinion, and it was thought to be extremely unscientific to try and hazard a guess of the cause in either of these incidents.

Since the witnesses in both cases were experienced and reliable—and in the case of Sween MacDonald, the incident was sufficiently impressive to change him from a sceptic of 18 years' standing to a believer in the existence of some large creature inhabiting the loch—both incidents have been accepted for inclusion in the Survey's record of sighting reports. It is worth noting that the maximum speed of an otter is said to be 6—7 m.p.h. (5—6 knots). (C. J. Harris, *Otters*, Weidenfeld and Nicolson, 1968).

**Conclusion**

The occurrence of five sightings in the period covered by this report (the 14 months from October 1970 to December 1971) would appear to be normal. There has certainly been no suspicious upsurge of reports such as was forecast by sceptics when the Survey's 1970 report was published. The four reports by Morar residents were given willingly to the Survey, but only after the witnesses had been approached and asked to give evidence; in no case did they approach the Survey voluntarily.

It is considered that the number, nature and manner of presentation of these reports confirms the pattern established previously, and corroborates the evidence which other witnesses have given. The reports do not add any significant new information.

The Survey records its appreciation to these witnesses, and to Lord Glendevon, Dr. Cooper, Mr. Charles MacDonald and Mr. and Mrs. Patmore, for their co-operation.