

Ecological Investigation of Proposed Extension to Marine Farm 229
— G & J Godsiff

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REC 1910
4990720

Introduction

An investigation of the ecological environment was carried out as part of an application to extend the established marine farm 229 located in Nikau Bay, Pelorus Sound.

Methods

As the proposed extension is over 2 hectares, two transects of this site were done; the location of which is indicated in Figure 1. Two divers, including the author, did transects of 0.5-1m in width (visibility was particularly poor at this site). Any unidentified species were brought to the surface for identification with reference material.

Any depths listed here have been adjusted to chart datum (CD) for Havelock (NZ Nautical Almanac 1999). The relative abundance of each species is given according to the scale given in the Department of Conservation "Guideline for ecological investigations of proposed marine farm areas — Marlborough Sounds" in which 1 = rare, 2 = occasional and 3 = common.

Results & Conclusions

Both the depth sounder profile and dive transects (Figure 1) indicated that the proposed extension is a flat bottomed site of approximately 7 metres (CD) deep, largely consisting of fine silt/mud (see Figure 2). Inshore of the proposed site, depths gradually decreased and the substratum changed from silt/mud to a mixture of sand/mud and rocky outcrops before becoming the tidal rocky shoreline.

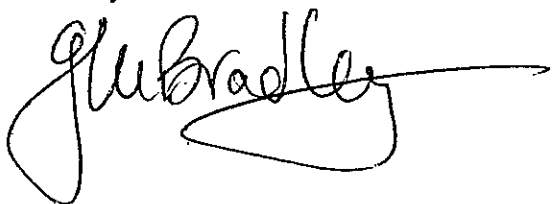
Biodiversity within the proposed extension is limited as can be seen by the list of species identified in each transect (Table 1). Under the proposed site, the most prevalent species were tubeworms, cushion stars of various sizes, red algae and the bryozoan species known as 'orange lace coral'. Nothing of significance, as determined by the DoC guidelines for the Marlborough Sounds, was observed.

Table 1: Ecological survey of proposed extension to marine farm 229

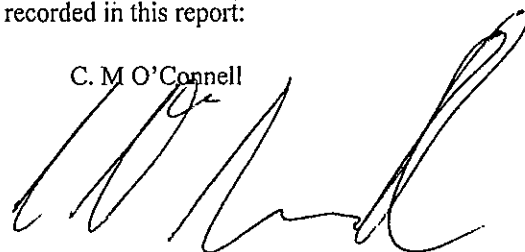
Species	Transect 1	Transect 2
Tube worms (holes & mounds)	3	3
Bryozoan Orange Lace Coral (<i>Smittina acarzensis</i>)	2	2
Cushion star (<i>Patiriella regularis</i>)	3	3
Red algae (<i>Rhodomyenia leptophylla</i>)	3	2-3
Golfball sponge (<i>Tethya aurantium</i>)	1	-
Finger sponge	-	1
Horse mussels (<i>Atrina zelandica</i>)	1	-
Triplefin species	2	1
Spotty (<i>Notolabrus celidotus</i>)	-	1
Wrinkled sea squirts (<i>Cnemidocarpa niootis</i>)	2	2
Black edged mussels (<i>Mytilus edulis aoteanus</i>)	2-3	-
<i>Cystophora</i> sp.	2	-
Venus necklace (<i>Hormosira banksii</i>)	3	-

This certifies that all observations made by the divers are recorded in this report:

J.M Bradley



C. M O'Connell



N

LI 17
SO 5429LI 18
SO 5467

FIGURE 1:
Transects ① & ② are
indicated. Depths are
adjusted to Chart Datum.

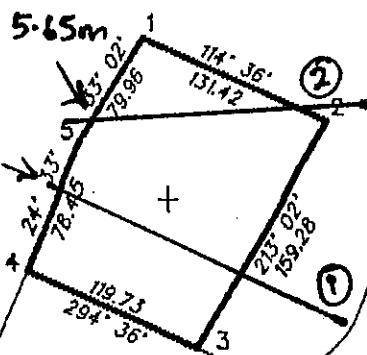
DRAFT

Nikau Bay

Sec 25
SO 4449
Local Purpose Reserve
(Sounds Foreshore)

Sec 8
Blk III. Orieri SD
CT
XX

2.025 ha



Lot 1
DP 2679

CT 3A/1462

LI 229
SO 5981

Pt Sec 152
Pelorus Sound Dist
CT
XX

LI 129
SO 5809LI 73
SO 5681

SCHEDULE OF COORDINATES New Zealand Map Grid

Point	North	East
1	600	258
2	600	258
3	600	258
4	600	258
5	600	258
Centroid	600	258
Trig	600	258

*Plan of Proposed Coastal Permit
Being Extension to Lic 229*
D & J Godsiff

NOTE: The position of this application has not been surveyed.

MARLBOROUGH DISTRICT COUNCIL

Datum: New Zealand Map Grid

Figure 2: Subtidal Shore Profile of Proposed Extension to Marine Farm 229

