
INTRODUCTION

This report provides a summary of ETP coral incidental bycatch data collected by the Ministry for Primary Industries (MPI) observer programme from orange roughy target trawl fisheries over the last five fishing years (2008-09 to 2012-13).

The raw data are held in MPI's Centralised Observer Database (COD). Observers record vessel effort and catch information independent of vessel reporting as well as recording the catch of benthic material and collecting biological data. Observer data provides a much greater level of detail on everything brought aboard in the catch.

METHODS

No data grooming has been undertaken to identify or correct any errors in the data.

There may be errors as a result of miscoding, misidentification or other factors. The summaries provided here are in the form of sorted tables that list the MPI species code, scientific name, basic information on scientific classification (some species) and the legal status of each species observed together with the total observed catch weight and the number of years in the five years of observer data that a catch of that species was identified in the observed catch. The percentage of the total observed catch weight that the observed weight of each category or species comprises is also given.

Observers are present on only a proportion of fishing vessels. No attempt has been made to either scale up or to weight the data to correct for any sampling bias in the data set as a result of any variation between the distribution of observer coverage and the distribution or seasonality of commercial fishing effort. However, where observer coverage is high, the data are likely to be more representative of the overall fishery than where observer coverage is low.

The primary value of the observer data presented here is to provide an indication of the relative level of incidental ETP coral bycatch in each of the three individual orange roughy fisheries.

All catch weights by species or type of organism are of raw data. Information on scientific classification and legal status has been added to the original observer data assist in interpretation of the information. This supplementary information may not be error free.

REFERENCES

Anderson (2011) Fish and invertebrate bycatch and discards in orange roughy and oreo fisheries from 1990–91 until 2008–09. New Zealand Aquatic Environment and Biodiversity Report No. 67. 60p [for corals see p55]

Baird and Clark (2013) Coral Distribution and ORH Fisheries. Report held by Deepwater Group.

Baird et al (2012) Distribution of Protected Corals in New Zealand. NIWA Client Report for Department of Conservation. 95p.

Boyd (2013) Assessment of ecological effects of four New Zealand orange roughy fisheries Report. (21Aug 2013) Report Held by DWG. 39p. [For ETP Corals see pp 23-27].

Consalvey et al (2006) Information Review For Protected Deep-Sea Coral Species In The New Zealand Region. NIWA Client Report for Department of Conservation (DOC06307) 53p

MPI (2014) Fisheries Assessment Plenary. May 2014. Volume 2(44) Orange Roughy. Pp 596-610

O'Driscoll et al (2011) A review of hoki and middle-depth trawl surveys of the Chatham Rise 1992-2010 –New Zealand Fisheries Assessment Report 2011/47. 72p. Appendix (a); (b); (c); (d); (e); (f); (g); (h); (i); (j)

Stevens, D.W.; O'Driscoll, R.L.; Dunn, M.R.; Ballara, S.L.; Horn, P.L. (2012). Trawl survey of hoki and middle depth species on the Chatham Rise, January 2011 (TAN1101). New Zealand Fisheries Assessment Report 2012/10. 98 p

Stevens, D., O'Driscoll, R., Dunn, M., McGibbon, D., Horn, P. & Gautier, S (2011). Trawl survey of hoki and middle depth species on the Chatham Rise, January 2010 (TAN1001). New Zealand Fisheries Assessment Report 2011/10. 112 p

Tracey et al (2011a) Distribution of Corals in relation to fishing effort and assessment of accuracy of observer identification. Report prepared for DOC. 70p

Tracey et al (2011b) habitat forming cold-water corals show affinity for seamounts in the New Zealand region. Marine Ecology Progress Series 430: 1-22

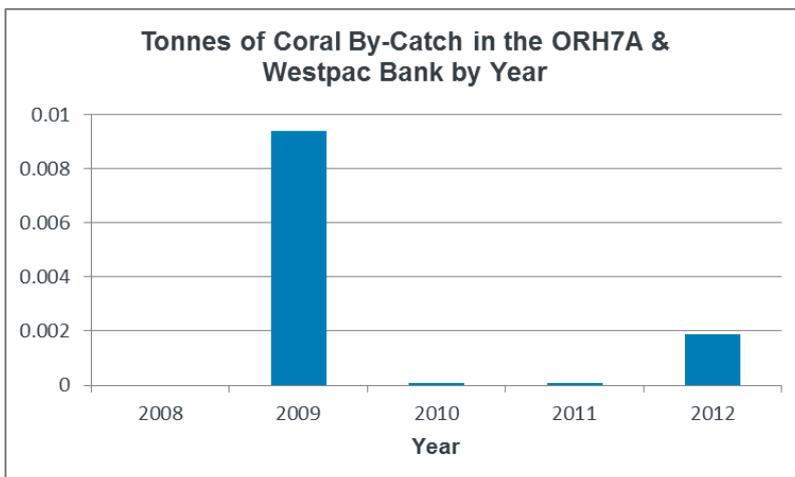
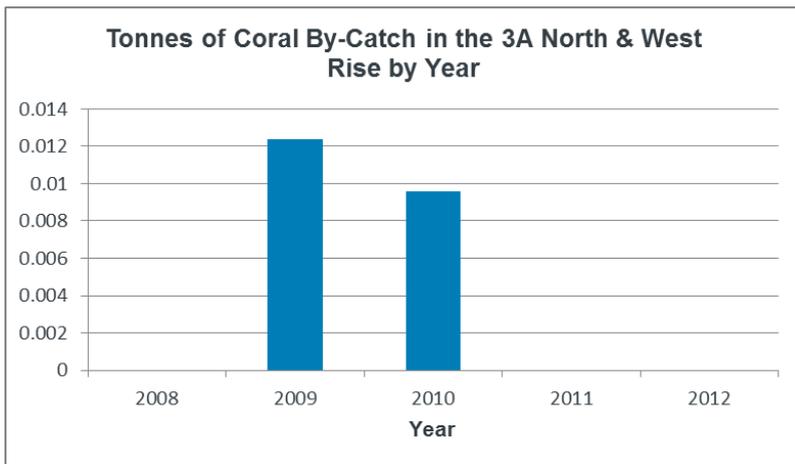
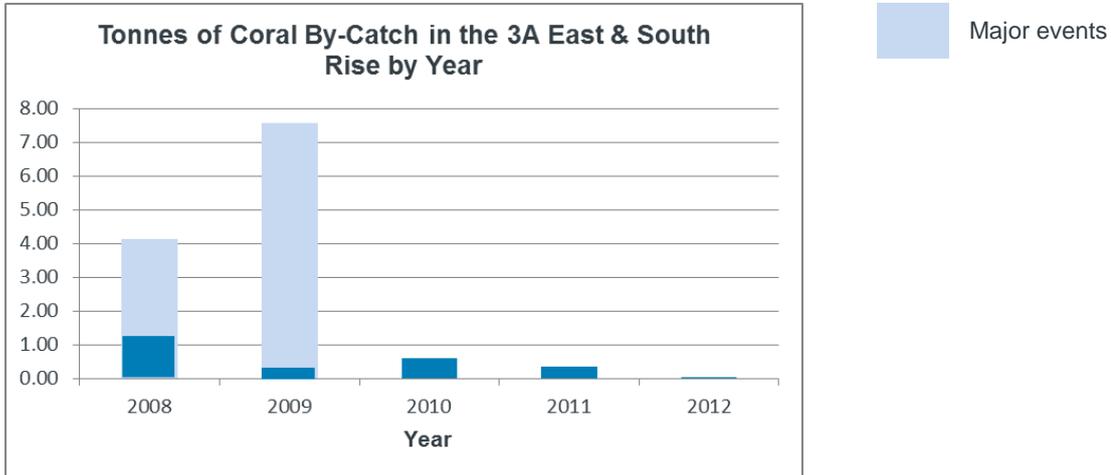
Tracey et al (2007a) Age & Growth of two Genera of Deepsea Bamboo Corals in New Zealand Waters. Bulletin of Marine Science 81(3) 393-408

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TABLE: TOTAL AND AVERAGE CORAL BYCATCH (t)

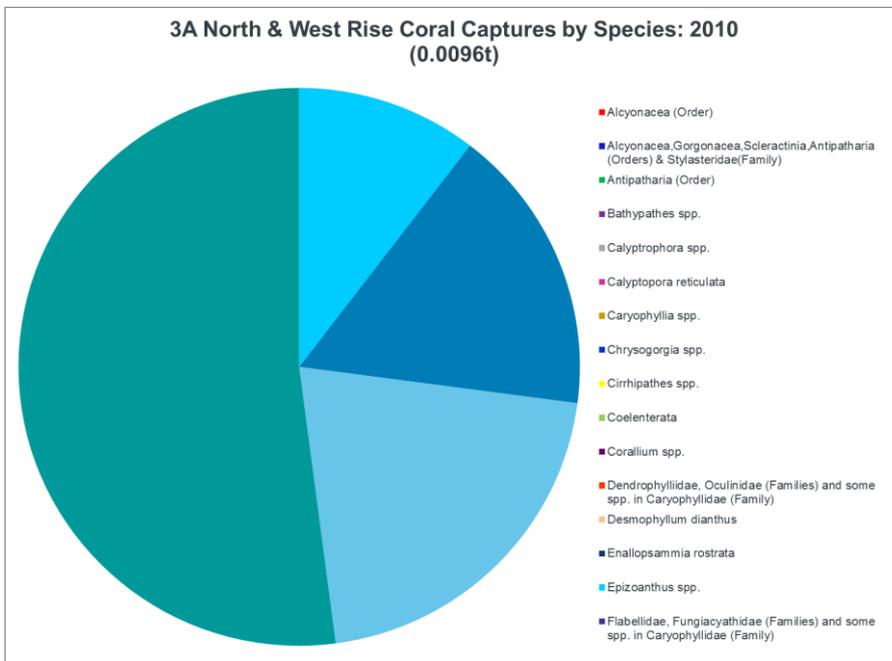
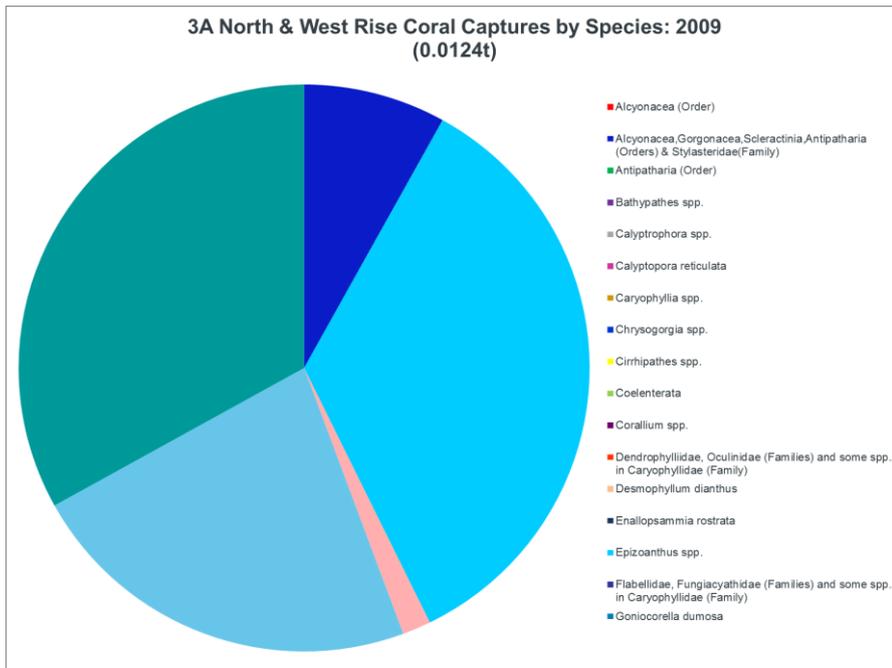
ORH3B (NWCR)	Total bycatch [2008-09 to 2012-13] (t)	0.0367
	Average bycatch [2008-09 to 2012-13] (t)	0.0014
ORH3B (ESCR)	Total ETP Coral bycatch [2008-09 to 2012-13] (t)	12.6799
	Average ETP Coral bycatch [2008-09 to 2012-13] (t)	0.0152
	Total bycatch [2008-09 to 2012-13 without <1 t events in 2008-2009] (t)	2.6799
	Average bycatch [2008-09 to 2012-13 without <1 t events in 2008-2009] (t)	0.0032
ORH7A + WB	Total ETP Coral bycatch [2008-09 to 2012-13] (t)	0.0091
	Average bycatch [2008-09 to 2012-13] (t)	0.0003

FIGURES: OBSERVED CORAL BY-CATCH (t)



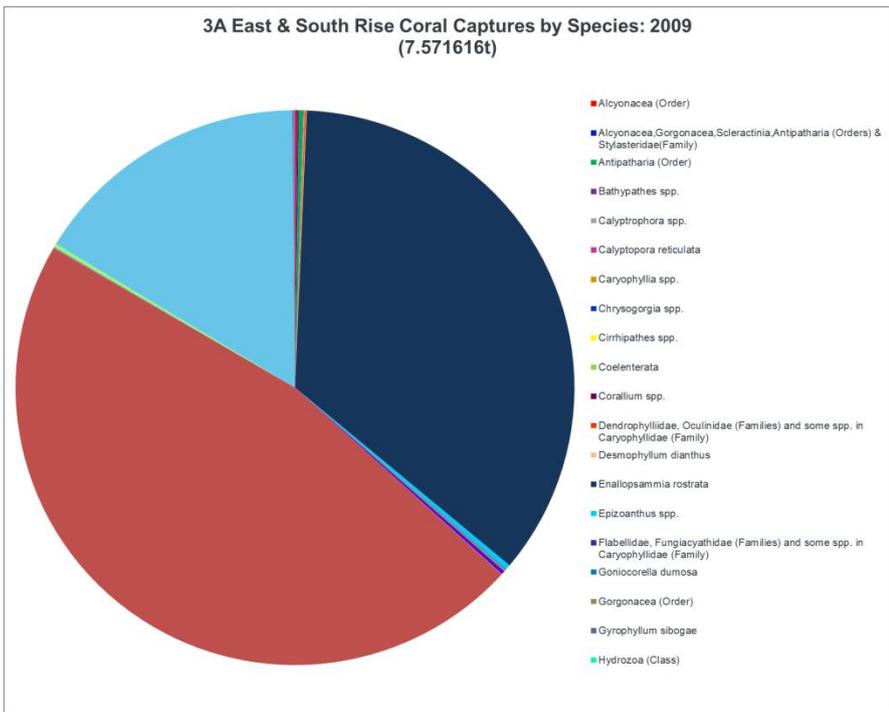
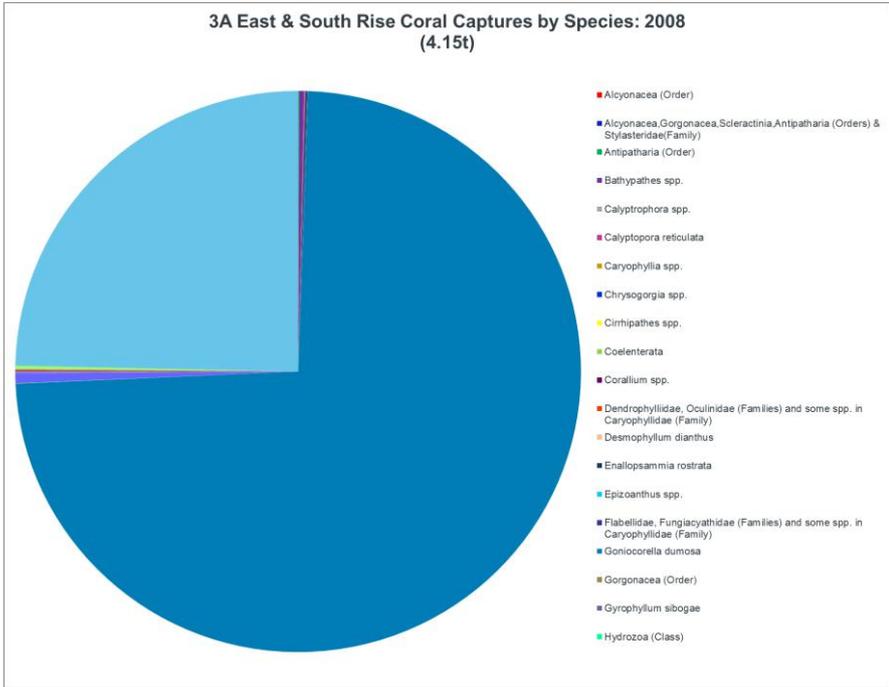
GRAPHS: CORAL BYCATCH BY SPECIES

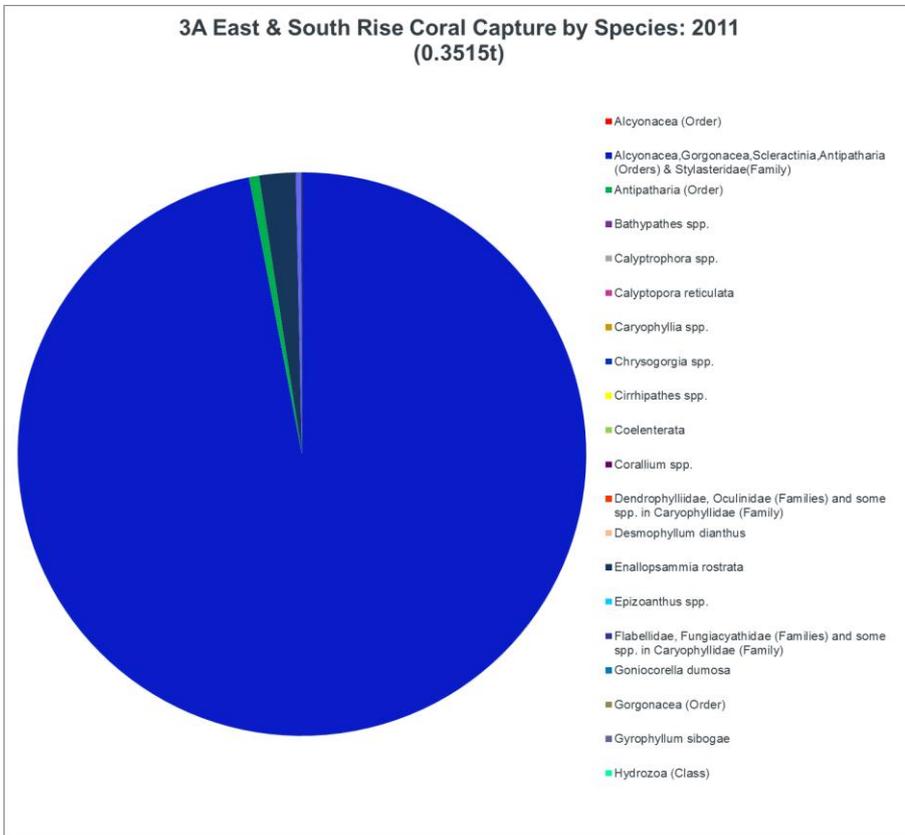
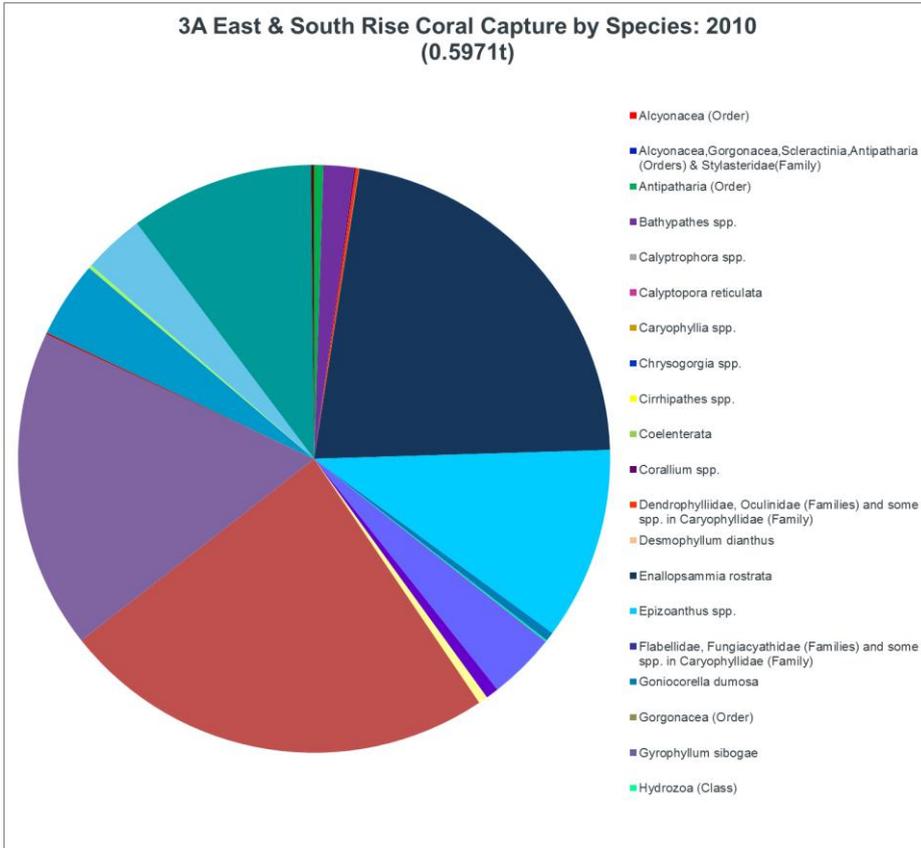
ORH3B (NWCR)



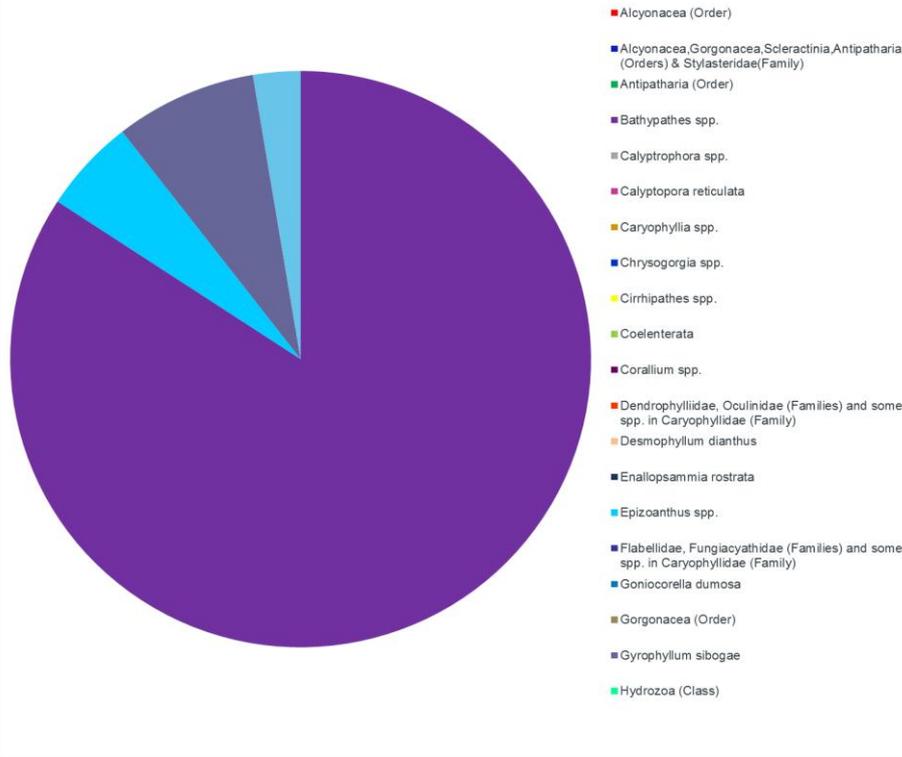
*No captures in 2008, 2011, 2012

ORH (ESCR)

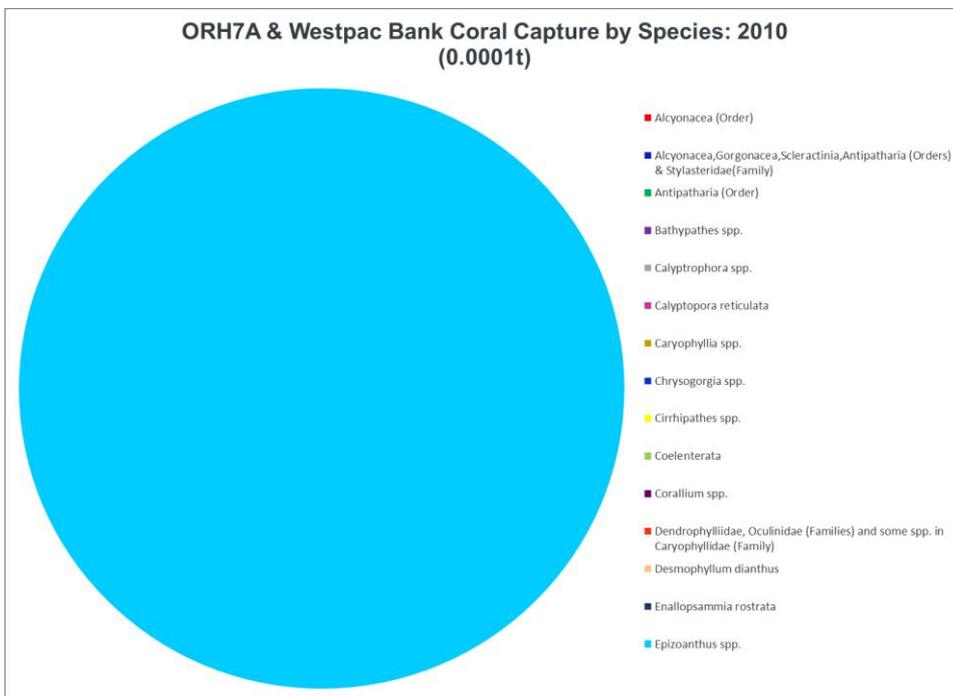
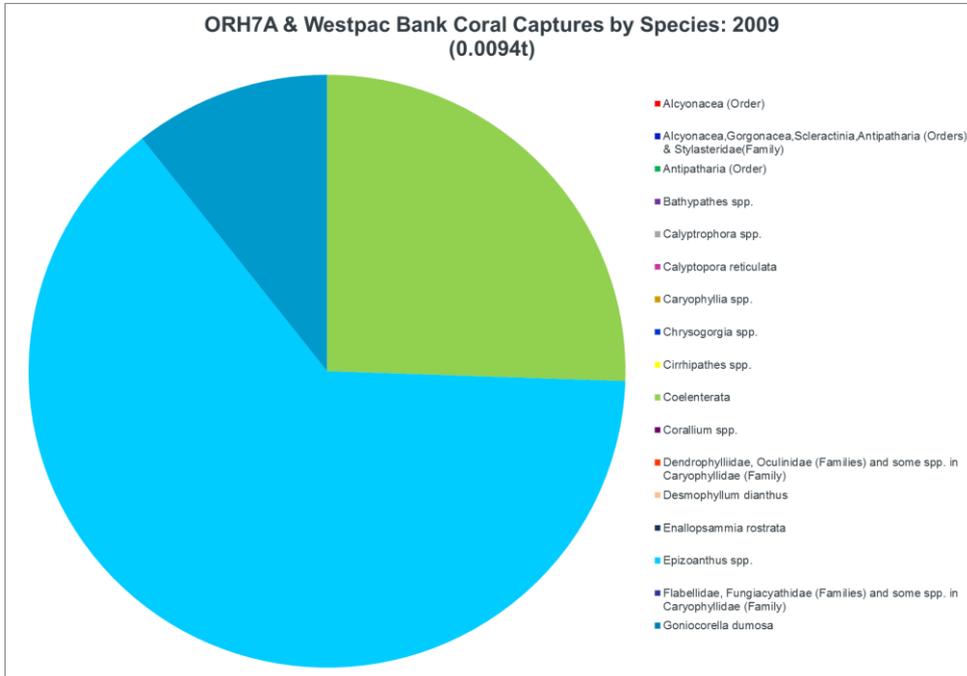


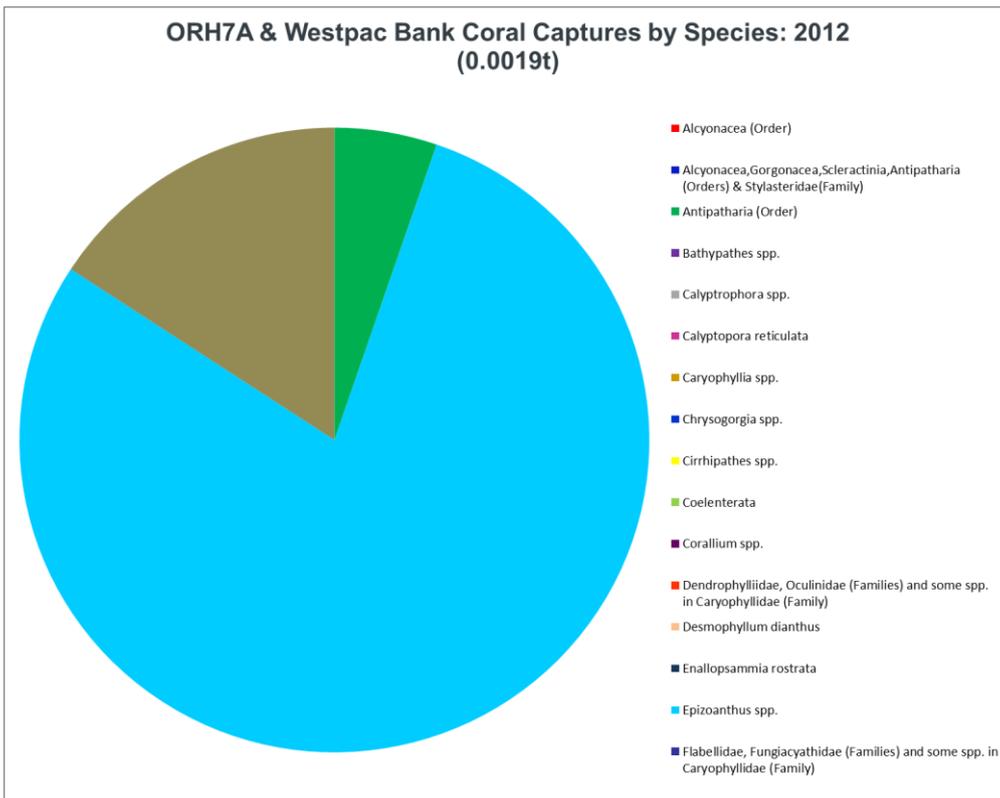
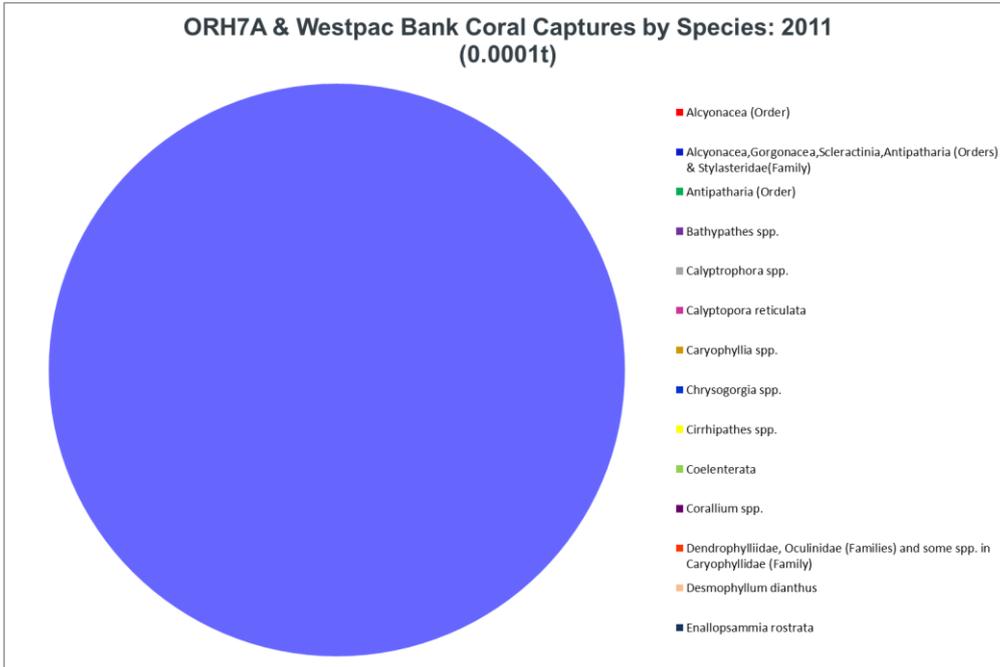


**3A East & South Rise Coral Captures by Species: 2012
(0.0038t)**



ORH7A & WESTPAC BANK





*No captures in 2008

APPENDIX: OBSERVER CORAL INTERACTION RECORDS
ORH3B (NWCR)

Table 1: ORH3B (NWCR) – Observed ETP Coral Incidental bycatch from target orange roughy fishery over the last 5 fishing years (2008-09 to 2012-13) (continued onto next page)

Date of Interaction	Organism type	Species Code	Common name	Scientific name	Observed bycatch (ORH target tows only) (t)
1 Jul 2013	ETP Coral	COR	Hydrocorals	Stylasteridae (Family)	0.0090
15 Mar 2010	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0010
10 Mar 2010	ETP Coral	CBD	Coral rubble - dead		0.0050
2 Mar 2010	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0050
7 Feb 2010	ETP Coral	GDU	Bushy hard coral	Goniocorella dumosa	0.0016
6 Feb 2010	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.0020
9 Dec 2009	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0001
5 Aug 2009	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0005
5 Aug 2009	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0006
4 Aug 2009	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0020
4 Aug 2009	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0002
4 Aug 2009	ETP Coral	PNN	Purple sea pen	Pennatula spp.	0.0002
4 Aug 2009	ETP Coral	SPN	Sea pen (octocoral)	Pennatula spp.	0.0002
4 Aug 2009	ETP Coral	SPN	Sea pen(octocoral)	Pennatula spp.	0.0001
4 Aug 2009	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0014
4 Aug 2009	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0003
4 Aug 2009	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0002
3 Aug 2009	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0010
3 Aug 2009	ETP Coral	SPN	Sea pen(octocoral)	Pennatula spp.	0.0004
3 Aug 2009	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0003
3 Aug 2009	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0003
3 Aug 2009	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0003
2 Aug 2009	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0010
2 Aug 2009	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0010

Date of Interaction	Organism type	Species Code	Common name	Scientific name	Observed bycatch (ORH target tows only) (t)
2 Aug 2009	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0001
31 July 2009	ETP Coral	SVA	Solenosmilia	Solenosmilia variabilis	0.0028
26 March 2009	ETP Coral	COU	Coral (unspecified)	Alcyonacea, Gorgonacea, Scleractinia, Antipatharia (Orders) & Stylasteridae (Family)	0.0010
Total bycatch [2008-09 to 2012-13] (t)					0.0367
Average bycatch [2008-09 to 2012-13] (t)					0.0014

ORH3B (ESCR)

Table 2: ORH3B (ESCR) – Observed ETP Coral Incidental bycatch from target orange roughy fishery over the last 5 fishing years (2008-09 to 2012-13) (continued over next few pages)

 Indicates an observer record of 1 tonne or more. There are five such records totalling 10 tonnes

Date of Interaction	Organism type	Species Code	Common name	Scientific name	Observed bycatch (ORH target tows only) (t)
31/05/2012	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0002
29/05/2012	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.0001
17/05/2012	ETP Coral	GDU	Bushy hard coral	Goniocorella dumosa	0.0003
17/05/2012	ETP Coral	COB	Black coral	Antipatharia (Order)	0.0032
13/11/2011	ETP Coral	COU	Coral (unspecified)	Alcyonacea, Gorgonacea, Scleractinia, Antipatharia (Orders) & Stylasteridae (Family)	0.0030
13/11/2011	ETP Coral	COU	Coral (unspecified)	Alcyonacea, Gorgonacea, Scleractinia, Antipatharia (Orders) & Stylasteridae (Family)	0.0100
13/11/2011	ETP Coral	COU	Coral (unspecified)	Alcyonacea, Gorgonacea, Scleractinia, Antipatharia (Orders) & Stylasteridae (Family)	0.0020
12/11/2011	ETP Coral	COU	Coral (unspecified)	Alcyonacea, Gorgonacea, Scleractinia, Antipatharia (Orders) & Stylasteridae (Family)	0.0050
6/11/2011	ETP Coral	COU	Coral (unspecified)	Alcyonacea, Gorgonacea, Scleractinia, Antipatharia (Orders) & Stylasteridae (Family)	0.0010
5/11/2011	ETP Coral	COU	Coral (unspecified)	Alcyonacea, Gorgonacea, Scleractinia, Antipatharia (Orders) & Stylasteridae (Family)	0.0200
4/11/2011	ETP Coral	COU	Coral (unspecified)	Alcyonacea, Gorgonacea, Scleractinia, Antipatharia (Orders) & Stylasteridae (Family)	0.3000
4/11/2011	ETP Coral	COB	Black coral	Antipatharia (Order)	0.0020
29/05/2011	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0000
29/05/2011	ETP Coral	ERO	Deepwater branching coral	Enallopsammia rostrata	0.0001
29/05/2011	ETP Coral	ISI	Bamboo corals	Isididae	0.0010
27/05/2011	ETP Coral	ERO	Deepwater branching coral	Enallopsammia rostrata	0.0001
27/05/2011	ETP Coral	LPT	Spiny lace coral	Lepidotheca spp.	0.0002
27/05/2011	ETP Coral	ERO	Deepwater branching coral	Enallopsammia rostrata	0.0010

Date of Interaction	Organism type	Species Code	Common name	Scientific name	Observed bycatch (ORH target tows only) (t)
26/05/2011	ETP Coral	ERO	Deepwater branching coral	Enallopsammia rostrata	0.0051
21/03/2011	ETP Coral	ERO	Deepwater branching coral	Enallopsammia rostrata	0.0010
29/06/2010	ETP Coral	SIA	Stony corals	Scleractinia	0.0010
29/06/2010	ETP Coral	CLL	Precious coral	Corallium spp.	0.0005
20/06/2010	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0020
20/06/2010	ETP Coral	BOO	Bamboo coral	Keratoisis spp.	0.0010
18/06/2010	ETP Coral	CBR	Stony branching corals	Dendrophylliidae, Oculinidae (Families) and some spp. in Caryophyllidae (Family)	0.0010
18/06/2010	ETP Coral	HDR	Hydroid	Hydrozoa (Class)	0.0005
18/06/2010	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0010
17/06/2010	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0100
17/06/2010	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0020
17/06/2010	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0010
16/06/2010	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0010
16/06/2010	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0010
15/06/2010	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0010
14/06/2010	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0010
14/06/2010	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0010
14/06/2010	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0010
13/06/2010	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0010
13/06/2010	ETP Coral	LSE	Leiopathes secunda	Leiopathes secunda	0.0010
10/06/2010	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0010
10/06/2010	ETP Coral	BOO	Bamboo coral	Keratoisis spp.	0.0002
10/06/2010	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0010
9/06/2010	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0010
8/06/2010	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0010
8/06/2010	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0010
7/06/2010	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0010
7/06/2010	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0010
7/06/2010	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0010
Date of Interaction	Organism type	Species Code	Common name	Scientific name	Observed bycatch (ORH target tows only) (t)

6/06/2010	ETP Coral	ERO	Deepwater branching coral	Enallopsammia rostrata	0.0300
5/06/2010	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0010
5/06/2010	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0010
5/06/2010	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0010
5/06/2010	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0010
5/06/2010	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0010
5/06/2010	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0130
5/06/2010	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0020
4/06/2010	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0010
4/06/2010	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0010
4/06/2010	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0010
4/06/2010	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0010
4/06/2010	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0030
4/06/2010	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0010
3/06/2010	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0020
3/06/2010	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0020
2/06/2010	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0010
2/06/2010	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0010
1/06/2010	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0010
1/06/2010	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0020
1/06/2010	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0010
31/05/2010	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0010
31/05/2010	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0010
31/05/2010	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0010
31/05/2010	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0010
29/05/2010	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0010
29/05/2010	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0010
29/05/2010	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0010
28/05/2010	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0010
Date of Interaction	Organism type	Species Code	Common name	Scientific name	Observed bycatch (ORH target tows only) (t)
28/05/2010	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0010

27/05/2010	ETP Coral	ISI	Bamboo corals	Isididae	0.0010
27/05/2010	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0020
26/05/2010	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0050
26/05/2010	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0010
25/05/2010	ETP Coral	ISI	Bamboo corals	Isididae	0.0010
25/05/2010	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0020
24/05/2010	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0020
23/05/2010	ETP Coral	GOC	Gorgonian coral	Gorgonacea (Order)	0.0010
23/05/2010	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0010
23/05/2010	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0010
21/05/2010	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0030
21/05/2010	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0010
21/05/2010	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0030
21/05/2010	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0010
20/05/2010	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0040
20/05/2010	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0020
20/05/2010	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0020
20/05/2010	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0020
19/05/2010	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0030
19/05/2010	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0002
19/05/2010	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0020
19/05/2010	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0030
12/05/2010	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0040
11/05/2010	ETP Coral	COR	Hydrocorals	Stylasteridae (Family)	0.0010
11/05/2010	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0010
8/03/2010	ETP Coral	PMN	Primnoa spp.	Primnoa spp.	0.0100
2/03/2010	ETP Coral	GDU	Bushy hard coral	Goniocorella dumosa	0.0010
22/02/2010	ETP Coral	GDU	Bushy hard coral	Goniocorella dumosa	0.0020
22/02/2010	ETP Coral	DDI	Desmophyllum dianthus	Desmophyllum dianthus	0.0001
21/02/2010	ETP Coral	ERO	Deepwater branching coral	Enallopsammia rostrata	0.0018
21/02/2010	ETP Coral	MOC	Madrepora oculata	Madrepora oculata	0.0002
Date of Interaction	Organism type	Species Code	Common name	Scientific name	Observed bycatch (ORH target tows only) (t)
18/02/2010	ETP Coral	PTP	Parantipathes spp.	Parantipathes spp.	0.0005

16/01/2010	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.0200
15/01/2010	ETP Coral	BTP	Bathypathes spp.	Bathypathes spp.	0.0020
14/01/2010	ETP Coral	BTP	Bathypathes spp.	Bathypathes spp.	0.0050
14/01/2010	ETP Coral	BOO	Bamboo coral	Keratoisis spp.	0.0010
14/01/2010	ETP Coral	LSE	Leiopathes secunda	Leiopathes secunda	0.0020
14/01/2010	ETP Coral	LEI	Leiopathes spp.	Leiopathes spp.	0.0000
14/01/2010	ETP Coral	BOO	Bamboo coral	Keratoisis spp.	0.0010
14/01/2010	ETP Coral	BTP	Bathypathes spp.	Bathypathes spp.	0.0030
14/01/2010	ETP Coral	MOC	Madrepora oculata	Madrepora oculata	0.0020
13/01/2010	ETP Coral	COB	Black coral	Antipatharia (Order)	0.0030
13/01/2010	ETP Coral	COU	Coral (unspecified)	Alcyonacea, Gorgonacea, Scleractinia, Antipatharia (Orders) & Stylasteridae (Family)	0.0000
11/01/2010	ETP Coral	PAB	Bubblegum coral	Paragorgia arborea	0.0250
10/01/2010	ETP Coral	PRI	Primnoidae	Primnoidae	0.0001
10/01/2010	ETP Coral	MOC	Madrepora oculata	Madrepora oculata	0.1000
10/01/2010	ETP Coral	ERO	Deepwater branching coral	Enallopsammia rostrata	0.1000
10/01/2010	ETP Coral	BOO	Bamboo coral	Keratoisis spp.	0.0010
10/01/2010	ETP Coral	MOC	Madrepora oculata	Madrepora oculata	0.0400
10/01/2010	ETP Coral	ISI	Bamboo corals	Isididae	0.0200
10/01/2010	ETP Coral	PAB	Bubblegum coral	Paragorgia arborea	0.0800
10/01/2010	ETP Coral	PMN	Primnoa spp.	Primnoa spp.	0.0150
23/12/2009	ETP Coral	GDU	Bushy hard coral	Goniocorella dumosa	0.0030
23/12/2009	ETP Coral	CHR	Golden coral	Chrysogorgia spp.	0.0005
22/12/2009	ETP Coral	COB	Black coral	Antipatharia (Order)	0.0005
19/12/2009	ETP Coral	COB	Black coral	Antipatharia (Order)	0.0005
19/12/2009	ETP Coral	BOO	Bamboo coral	Keratoisis spp.	0.0003
17/12/2009	ETP Coral	LLE	Bamboo coral	Lepidisis spp.	0.0010
16/12/2009	ETP Coral	GDU	Bushy hard coral	Goniocorella dumosa	0.0002
16/12/2009	ETP Coral	COB	Black coral	Antipatharia (Order)	0.0001
16/12/2009	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0002
6/12/2009	ETP Coral	BOO	Bamboo coral	Keratoisis spp.	0.0002
30/11/2009	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.0003
30/11/2009	ETP Coral	DDI	Desmophyllum dianthus	Desmophyllum dianthus	0.0002
Date of Interaction	Organism type	Species Code	Common name	Scientific name	Observed bycatch (ORH target tows only) (t)
30/11/2009	ETP Coral	DDI	Desmophyllum dianthus	Desmophyllum dianthus	0.0002

28/11/2009	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0001
28/11/2009	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0001
27/11/2009	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0002
27/11/2009	ETP Coral	COB	Black coral	Antipatharia (Order)	0.0002
27/11/2009	ETP Coral	PTU	Sea pens	Pennatulacea (Order)	0.0002
26/11/2009	ETP Coral	PTU	Sea pens	Pennatulacea (Order)	0.0001
26/11/2009	ETP Coral	GYS	Siboga sea pen	Gyrophyllum sibogae	0.0000
24/11/2009	ETP Coral	COU	Coral (unspecified)	Alcyonacea, Gorgonacea, Scleractinia, Antipatharia (Orders) & Stylasteridae (Family)	0.0050
24/11/2009	ETP Coral	BOO	Bamboo coral	Keratoisis spp.	0.0012
24/11/2009	ETP Coral	MOC	Madrepora oculata	Madrepora oculata	0.0004
24/11/2009	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.0002
24/11/2009	ETP Coral	PMN	Primnoa spp.	Primnoa spp.	0.0002
24/11/2009	ETP Coral	THO	Bottlebrush coral	Thouarella spp.	0.0002
24/11/2009	ETP Coral	PLL	Plumarella spp.	Plumarella spp.	0.0000
18/11/2009	ETP Coral	CBB	Coral rubble		0.0010
2/11/2009	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.0005
2/11/2009	ETP Coral	HDR	Hydroid	Hydrozoa (Class)	0.0001
1/11/2009	ETP Coral	CBB	Coral rubble		0.0010
24/10/2009	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.0032
24/10/2009	ETP Coral	ERO	Deepwater branching coral	Enallopsammia rostrata	0.0005
24/10/2009	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.0003
24/10/2009	ETP Coral	PAB	Bubblegum coral	Paragorgia arborea	0.0003
24/10/2009	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.0101
24/10/2009	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.0091
24/10/2009	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.0063
23/10/2009	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.0047
23/10/2009	ETP Coral	ERO	Deepwater branching coral	Enallopsammia rostrata	0.0008
23/10/2009	ETP Coral	ERO	Deepwater branching coral	Enallopsammia rostrata	0.0043
23/10/2009	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.0043
23/10/2009	ETP Coral	ERO	Deepwater branching coral	Enallopsammia rostrata	0.0043
23/10/2009	ETP Coral	MOC	Madrepora oculata	Madrepora oculata	1.0000
Date of Interaction	Organism type	Species Code	Common name	Scientific name	Observed bycatch (ORH target tows only) (t)
23/10/2009	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.1805

22/10/2009	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.0051
22/10/2009	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.0009
21/10/2009	ETP Coral	COB	Black coral	Antipatharia (Order)	0.0016
21/10/2009	ETP Coral	COB	Black coral	Antipatharia (Order)	0.0008
19/10/2009	ETP Coral	MOC	Madrepora oculata	Madrepora oculata	0.0200
19/10/2009	ETP Coral	TLO	Encrusting long polyyps, coral	Telesto spp.	0.0048
19/10/2009	ETP Coral	PAB	Bubblegum coral	Paragorgia arborea	0.0008
18/10/2009	ETP Coral	PMN	Primnoa spp.	Primnoa spp.	0.0010
15/10/2009	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0004
14/10/2009	ETP Coral	PNN	Purple sea pen	Pennatula spp.	0.0001
14/10/2009	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0000
13/10/2009	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0001
13/10/2009	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0002
12/10/2009	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0001
10/10/2009	ETP Coral	BTP	Bathypathes spp.	Bathypathes spp.	0.0004
10/10/2009	ETP Coral	TLO	Encrusting long polyyps, coral	Telesto spp.	0.0000
10/10/2009	ETP Coral	ZAH	Zoanthids	Zoantharia (Order)	0.0000
10/10/2009	ETP Coral	COU	Coral (unspecified)	Alcyonacea, Gorgonacea, Scleractinia, Antipatharia (Orders) & Stylasteridae (Family)	0.0000
10/10/2009	ETP Coral	COU	Coral (unspecified)	Alcyonacea, Gorgonacea, Scleractinia, Antipatharia (Orders) & Stylasteridae (Family)	0.0000
10/10/2009	ETP Coral	COB	Black coral	Antipatharia (Order)	0.0002
10/10/2009	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0000
10/10/2009	ETP Coral	COB	Black coral	Antipatharia (Order)	0.0001
10/10/2009	ETP Coral	COU	Coral (unspecified)	Alcyonacea, Gorgonacea, Scleractinia, Antipatharia (Orders) & Stylasteridae (Family)	0.0000
9/10/2009	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.1500
9/10/2009	ETP Coral	TLO	Encrusting long polyyps, coral	Telesto spp.	0.0025
9/10/2009	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.0110
8/10/2009	ETP Coral	ERO	Deepwater branching coral	Enallopsammia rostrata	0.0030
Date of Interaction	Organism type	Species Code	Common name	Scientific name	Observed bycatch (ORH target tows only) (t)
8/10/2009	ETP Coral	GOC	Gorgonian coral	Gorgonacea (Order)	0.0030

8/10/2009	ETP Coral	CAY	Caryophyllia spp	Caryophyllia spp.	0.0000
8/10/2009	ETP Coral	SOC	Soft coral	Alcyonacea (Order)	0.0000
8/10/2009	ETP Coral	HDR	Hydroid	Hydrozoa (Class)	0.0000
8/10/2009	ETP Coral	SOC	Soft coral	Alcyonacea (Order)	0.0000
8/10/2009	ETP Coral	SPN	Sea pen		0.0000
8/10/2009	ETP Coral	SPN	Sea pen		0.0000
8/10/2009	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.0190
8/10/2009	ETP Coral	ERO	Deepwater branching coral	Enallopsammia rostrata	0.0190
8/10/2009	ETP Coral	CAY	Caryophyllia spp	Caryophyllia spp.	0.0000
8/10/2009	ETP Coral	DDI	Desmophyllum dianthus	Desmophyllum dianthus	0.0000
7/10/2009	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.0000
7/10/2009	ETP Coral	THO	Bottlebrush coral	Thouarella spp.	0.0000
30/07/2009	ETP Coral	COB	Black coral	Antipatharia (Order)	0.0015
30/07/2009	ETP Coral	COB	Black coral	Antipatharia (Order)	0.0001
29/07/2009	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.0005
29/07/2009	ETP Coral	SOC	Soft coral	Alcyonacea (Order)	0.0001
25/07/2009	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.0000
20/07/2009	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.0006
20/07/2009	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.0005
20/07/2009	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.0002
20/07/2009	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.0002
18/07/2009	ETP Coral	BOO	Bamboo coral	Keratoisis spp.	0.0035
18/07/2009	ETP Coral	MOC	Madrepora oculata	Madrepora oculata	0.0009
10/07/2009	ETP Coral	MOC	Madrepora oculata	Madrepora oculata	2.5000
10/07/2009	ETP Coral	ERO	Deepwater branching coral	Enallopsammia rostrata	2.5000
10/07/2009	ETP Coral	COU	Coral (unspecified)	Alcyonacea, Gorgonacea, Scleractinia, Antipatharia (Orders) & Stylasteridae (Family)	0.0010
10/07/2009	ETP Coral	ISI	Bamboo corals	Isididae	0.0010
10/07/2009	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.0004
10/07/2009	ETP Coral	SIA	Stony corals	Scleractinia	0.0003
10/07/2009	ETP Coral	SIA	Stony corals	Scleractinia	0.0002
10/07/2009	ETP Coral	ERO	Deepwater branching coral	Enallopsammia rostrata	0.0001
10/07/2009	ETP Coral	DDI	Desmophyllum dianthus	Desmophyllum dianthus	0.0001
Date of Interaction	Organism type	Species Code	Common name	Scientific name	Observed bycatch (ORH target tows only) (t)
10/07/2009	ETP Coral	COR	Hydrocorals	Stylasteridae (Family)	0.0001

10/07/2009	ETP Coral	ERO	Deepwater branching coral	Enallopsammia rostrata	0.0000
10/07/2009	ETP Coral	CAY	Caryophyllia spp	Caryophyllia spp.	0.0000
10/07/2009	ETP Coral	GOC	Gorgonian coral	Gorgonacea (Order)	0.0000
10/07/2009	ETP Coral	SOC	Soft coral	Alcyonacea (Order)	0.0000
8/07/2009	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0001
15/06/2009	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.0006
15/06/2009	ETP Coral	SOC	Soft coral	Alcyonacea (Order)	0.0100
15/06/2009	ETP Coral	CAY	Caryophyllia spp	Caryophyllia spp.	0.0027
15/06/2009	ETP Coral	GOC	Gorgonian coral	Gorgonacea (Order)	0.0020
15/06/2009	ETP Coral	GOC	Gorgonian coral	Gorgonacea (Order)	0.0020
15/06/2009	ETP Coral	COB	Black coral	Antipatharia (Order)	0.0010
15/06/2009	ETP Coral	PTP	Parantipathes spp.	Parantipathes spp.	0.0002
14/06/2009	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0001
14/06/2009	ETP Coral	CUP	Stony cup corals	Flabellidae, Fungiacyathidae (Families) and some spp. in Caryophyllidae (Family)	0.0001
13/06/2009	ETP Coral	CBD	Coral rubble - dead		0.0050
13/06/2009	ETP Coral	CAY	Caryophyllia spp	Caryophyllia spp.	0.0001
13/06/2009	ETP Coral	SPN	Sea pen		0.0002
12/06/2009	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0002
11/06/2009	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0002
11/06/2009	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0001
11/06/2009	ETP Coral	SIA	Stony corals	Scleractinia	0.0015
11/06/2009	ETP Coral	DDI	Desmophyllum dianthus	Desmophyllum dianthus	0.0005
11/06/2009	ETP Coral	SOC	Soft coral	Alcyonacea (Order)	0.0001
8/06/2009	ETP Coral	SIA	Stony corals	Scleractinia	0.0010
8/06/2009	ETP Coral	CBR	Stony branching corals	Dendrophylliidae, Oculinidae (Families) and some spp. in Caryophyllidae (Family)	0.0002
7/06/2009	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0002
7/06/2009	ETP Coral	COR	Hydrocorals	Stylasteridae (Family)	0.0004
7/06/2009	ETP Coral	CAY	Caryophyllia spp	Caryophyllia spp.	0.0004
7/06/2009	ETP Coral	THO	Bottlebrush coral	Thouarella spp.	0.0004
7/06/2009	ETP Coral	DDI	Desmophyllum dianthus	Desmophyllum dianthus	0.0004
Date of Interaction	Organism type	Species Code	Common name	Scientific name	Observed bycatch (ORH target tows only) (t)
7/06/2009	ETP Coral	CRE	White hydrocoral	Calyptopora reticulata	0.0001

7/06/2009	ETP Coral	CAY	Caryophyllia spp	Caryophyllia spp.	0.0001
4/06/2009	ETP Coral	HDF	Feathery hydroids	Leptomeduseae (Order) and Anthoathecatae (Order) excluding family Stylasteridae	0.0001
4/06/2009	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0002
4/06/2009	ETP Coral	PNN	Purple sea pen	Pennatula spp.	0.0003
3/06/2009	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0001
3/06/2009	ETP Coral	PTU	Sea pens	Pennatulacea (Order)	0.0003
3/06/2009	ETP Coral	PTU	Sea pens	Pennatulacea (Order)	0.0002
3/06/2009	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0005
2/06/2009	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0002
1/06/2009	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0002
1/06/2009	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0002
31/05/2009	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0005
28/05/2009	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0010
27/05/2009	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0020
27/05/2009	ETP Coral	PTU	Sea pens	Pennatulacea (Order)	0.0005
27/05/2009	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0002
27/05/2009	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0002
26/05/2009	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0010
26/05/2009	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0010
26/05/2009	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0002
26/05/2009	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0010
26/05/2009	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0002
25/05/2009	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0002
25/05/2009	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0010
25/05/2009	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0002
24/05/2009	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0001
23/05/2009	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0001
11/05/2009	ETP Coral	COR	Hydrocorals	Stylasteridae (Family)	0.0001
11/05/2009	ETP Coral	COR	Hydrocorals	Stylasteridae (Family)	0.0001
9/05/2009	ETP Coral	COB	Black coral	Antipatharia (Order)	0.0005
Date of Interaction	Organism type	Species Code	Common name	Scientific name	Observed bycatch (ORH target tows only) (t)
1/05/2009	ETP Coral	COB	Black coral	Antipatharia (Order)	0.0030
1/05/2009	ETP Coral	HDR	Hydroid	Hydrozoa (Class)	0.0003

1/05/2009	ETP Coral	CLL	Precious coral	Corallium spp.	0.0002
1/05/2009	ETP Coral	COR	Hydrocorals	Stylasteridae (Family)	0.0001
1/05/2009	ETP Coral	COR	Hydrocorals	Stylasteridae (Family)	0.0005
1/05/2009	ETP Coral	CBR	Stony branching corals	Dendrophylliidae, Oculinidae (Families) and some spp. in Caryophyllidae (Family)	0.0004
1/05/2009	ETP Coral	CBR	Stony branching corals	Dendrophylliidae, Oculinidae (Families) and some spp. in Caryophyllidae (Family)	0.0001
30/04/2009	ETP Coral	CBR	Stony branching corals	Dendrophylliidae, Oculinidae (Families) and some spp. in Caryophyllidae (Family)	0.0001
30/04/2009	ETP Coral	HDR	Hydroid	Hydrozoa (Class)	0.0002
29/04/2009	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0020
29/04/2009	ETP Coral	CBR	Stony branching corals	Dendrophylliidae, Oculinidae (Families) and some spp. in Caryophyllidae (Family)	0.0020
29/04/2009	ETP Coral	CBR	Stony branching corals	Dendrophylliidae, Oculinidae (Families) and some spp. in Caryophyllidae (Family)	0.0001
11/03/2009	ETP Coral	PMN	Primnoa spp.	Primnoa spp.	0.0003
11/03/2009	ETP Coral	PRI	Primnoidae	Primnoidae	0.0003
11/03/2009	ETP Coral	PRI	Primnoidae	Primnoidae	0.0003
11/03/2009	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.0002
11/03/2009	ETP Coral	DDI	Desmophyllum dianthus	Desmophyllum dianthus	0.0000
11/03/2009	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0000
11/03/2009	ETP Coral	PRI	Primnoidae	Primnoidae	0.0007
11/03/2009	ETP Coral	PMN	Primnoa spp.	Primnoa spp.	0.0003
11/03/2009	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.0500
11/03/2009	ETP Coral	ERO	Deepwater branching coral	Enallopsammia rostrata	0.0050
11/03/2009	ETP Coral	ERO	Deepwater branching coral	Enallopsammia rostrata	0.0015
11/03/2009	ETP Coral	ERO	Deepwater branching coral	Enallopsammia rostrata	0.0010
10/03/2009	ETP Coral	BOO	Bamboo coral	Keratoisis spp.	0.0070
10/03/2009	ETP Coral	BOO	Bamboo coral	Keratoisis spp.	0.0010
10/03/2009	ETP Coral	PMN	Primnoa spp.	Primnoa spp.	0.0003
Date of Interaction	Organism type	Species Code	Common name	Scientific name	Observed bycatch (ORH target tows only) (t)
10/03/2009	ETP Coral	BOO	Bamboo coral	Keratoisis spp.	0.0001
10/03/2009	ETP Coral	BOO	Bamboo coral	Keratoisis spp.	0.0001
10/03/2009	ETP Coral	GOC	Gorgonian coral	Gorgonacea (Order)	0.0001

9/03/2009	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.0750
9/03/2009	ETP Coral	PMN	Primnoa spp.	Primnoa spp.	0.0008
9/03/2009	ETP Coral	BOO	Bamboo coral	Keratoisis spp.	0.0000
9/03/2009	ETP Coral	ERO	Deepwater branching coral	Enallopsammia rostrata	0.1000
9/03/2009	ETP Coral	ERO	Deepwater branching coral	Enallopsammia rostrata	0.0017
9/03/2009	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.0017
9/03/2009	ETP Coral	ERO	Deepwater branching coral	Enallopsammia rostrata	0.0017
9/03/2009	ETP Coral	DDI	Desmophyllum dianthus	Desmophyllum dianthus	0.0000
9/03/2009	ETP Coral	ERO	Deepwater branching coral	Enallopsammia rostrata	0.0001
9/03/2009	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.0001
9/03/2009	ETP Coral	MOC	Madrepora oculata	Madrepora oculata	0.0001
7/03/2009	ETP Coral	DDI	Desmophyllum dianthus	Desmophyllum dianthus	0.0007
7/03/2009	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.0020
7/03/2009	ETP Coral	ERO	Deepwater branching coral	Enallopsammia rostrata	0.0020
7/03/2009	ETP Coral	DDI	Desmophyllum dianthus	Desmophyllum dianthus	0.0005
7/03/2009	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.0020
7/03/2009	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.0010
6/03/2009	ETP Coral	BTP	Bathypathes spp.	Bathypathes spp.	0.0011
6/03/2009	ETP Coral	LEI	Leiopathes spp.	Leiopathes spp.	0.0001
4/03/2009	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0010
2/03/2009	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.0100
2/03/2009	ETP Coral	BTP	Bathypathes spp.	Bathypathes spp.	0.0001
27/02/2009	ETP Coral	BOO	Bamboo coral	Keratoisis spp.	0.0012
27/02/2009	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.1750
26/02/2009	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.0150
26/02/2009	ETP Coral	ERO	Deepwater branching coral	Enallopsammia rostrata	0.0150
26/02/2009	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.0100
26/02/2009	ETP Coral	ERO	Deepwater branching coral	Enallopsammia rostrata	0.0100
26/02/2009	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.0100
26/02/2009	ETP Coral	ERO	Deepwater branching coral	Enallopsammia rostrata	0.0100
21/02/2009	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.2500
Date of Interaction	Organism type	Species Code	Common name	Scientific name	Observed bycatch (ORH target tows only) (t)
21/02/2009	ETP Coral	BTP	Bathypathes spp.	Bathypathes spp.	0.0008
21/02/2009	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.1000
21/02/2009	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.0500
20/02/2009	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.0400

19/02/2009	ETP Coral	CBR	Stony branching corals	Dendrophylliidae, Oculinidae (Families) and some spp. in Caryophyllidae (Family)	0.0008
19/02/2009	ETP Coral	CBR	Stony branching corals	Dendrophylliidae, Oculinidae (Families) and some spp. in Caryophyllidae (Family)	0.0005
18/02/2009	ETP Coral	COB	Black coral	Antipatharia (Order)	0.0023
18/02/2009	ETP Coral	COU	Coral (unspecified)	Alcyonacea, Gorgonacea, Scleractinia, Antipatharia (Orders) & Stylasteridae (Family)	0.0000
13/02/2009	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0001
12/02/2009	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0010
12/02/2009	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0001
12/02/2009	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0010
12/02/2009	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0010
11/02/2009	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0001
11/02/2009	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0001
10/02/2009	ETP Coral	CBR	Stony branching corals	Dendrophylliidae, Oculinidae (Families) and some spp. in Caryophyllidae (Family)	0.0001
10/02/2009	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0001
9/02/2009	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.0002
9/02/2009	ETP Coral	CBR	Stony branching corals	Dendrophylliidae, Oculinidae (Families) and some spp. in Caryophyllidae (Family)	0.0002
27/01/2009	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0003
27/01/2009	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0010
25/01/2009	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0005
24/01/2009	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0001
24/01/2009	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0010
23/01/2009	ETP Coral	CTP	Calyptrophora spp.	Calyptrophora spp.	0.0001
23/01/2009	ETP Coral	CTP	Calyptrophora spp.	Calyptrophora spp.	0.0003
Date of Interaction	Organism type	Species Code	Common name	Scientific name	Observed bycatch (ORH target tows only) (t)
23/01/2009	ETP Coral	COB	Black coral	Antipatharia (Order)	0.0003
23/01/2009	ETP Coral	BTP	Bathypathes spp.	Bathypathes spp.	0.0000
15/01/2009	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.0050
15/01/2009	ETP Coral	COB	Black coral	Antipatharia (Order)	0.0034

15/01/2009	ETP Coral	ZAH	Zoanthids	Zoantharia (Order)	0.0000
15/01/2009	ETP Coral	ZAH	Zoanthids	Zoantharia (Order)	0.0000
15/01/2009	ETP Coral	COB	Black coral	Antipatharia (Order)	0.0020
15/01/2009	ETP Coral	COU	Coral (unspecified)	Alcyonacea, Gorgonacea, Scleractinia, Antipatharia (Orders) & Stylasteridae (Family)	0.0000
15/01/2009	ETP Coral	LEI	Leiopathes spp.	Leiopathes spp.	0.0006
15/01/2009	ETP Coral	BOO	Bamboo coral	Keratoisis spp.	0.0006
15/01/2009	ETP Coral	ZAH	Zoanthids	Zoantharia (Order)	0.0000
13/01/2009	ETP Coral	SIA	Stony corals	Scleractinia	0.0100
13/01/2009	ETP Coral	CIR	Whip corals	Cirripathes spp.	0.0003
13/01/2009	ETP Coral	BOO	Bamboo coral	Keratoisis spp.	0.0003
13/01/2009	ETP Coral	PRI	Primnoidae	Primnoidae	0.0003
12/01/2009	ETP Coral	CTP	Calyptrophora spp.	Calyptrophora spp.	0.0020
12/01/2009	ETP Coral	ERO	Deepwater branching coral	Enallopsammia rostrata	0.0001
11/01/2009	ETP Coral	STP	Solitary bowl coral	Stephanocyathus platypus	0.0002
11/01/2009	ETP Coral	ISI	Bamboo corals	Isididae	0.0001
10/01/2009	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0030
10/01/2009	ETP Coral	ERO	Deepwater branching coral	Enallopsammia rostrata	0.0002
6/01/2009	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.0100
6/01/2009	ETP Coral	COB	Black coral	Antipatharia (Order)	0.0002
6/01/2009	ETP Coral	BTP	Bathypathes spp.	Bathypathes spp.	0.0000
5/01/2009	ETP Coral	MOC	Madrepora oculata	Madrepora oculata	0.0095
5/01/2009	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.0095
5/01/2009	ETP Coral	BOO	Bamboo coral	Keratoisis spp.	0.0010
4/01/2009	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0002
30/12/2008	ETP Coral	STI	Stichopathes spp.	Stichopathes spp.	0.0000
28/12/2008	ETP Coral	BOO	Bamboo coral	Keratoisis spp.	0.0001
28/12/2008	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.0100
28/12/2008	ETP Coral	BOO	Bamboo coral	Keratoisis spp.	0.0001
26/12/2008	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.0100
Date of Interaction	Organism type	Species Code	Common name	Scientific name	Observed bycatch (ORH target tows only) (t)
26/11/2008	ETP Coral	PRI	Primnoidae	Primnoidae	0.0005
26/11/2008	ETP Coral	MOC	Madrepora oculata	Madrepora oculata	0.0001
26/11/2008	ETP Coral	ISI	Bamboo corals	Isididae	0.0001
26/11/2008	ETP Coral	DDI	Desmophyllum dianthus	Desmophyllum dianthus	0.0001

22/11/2008	ETP Coral	BTP	Bathypathes spp.	Bathypathes spp.	0.0069
22/11/2008	ETP Coral	COB	Black coral	Antipatharia (Order)	0.0007
21/11/2008	ETP Coral	SIA	Stony corals	Scleractinia	0.0070
19/11/2008	ETP Coral	BTP	Bathypathes spp.	Bathypathes spp.	0.0005
19/11/2008	ETP Coral	COB	Black coral	Antipatharia (Order)	0.0005
19/11/2008	ETP Coral	LEI	Leiopathes spp.	Leiopathes spp.	0.0005
19/11/2008	ETP Coral	LEI	Leiopathes spp.	Leiopathes spp.	0.0005
19/11/2008	ETP Coral	BTP	Bathypathes spp.	Bathypathes spp.	0.0005
19/11/2008	ETP Coral	BTP	Bathypathes spp.	Bathypathes spp.	0.0005
13/11/2008	ETP Coral	MOC	Madrepora oculata	Madrepora oculata	0.0049
13/11/2008	ETP Coral	BTP	Bathypathes spp.	Bathypathes spp.	0.0025
13/11/2008	ETP Coral	LEI	Leiopathes spp.	Leiopathes spp.	0.0012
13/11/2008	ETP Coral	SIA	Stony corals	Scleractinia	0.0009
13/11/2008	ETP Coral	HDR	Hydroid	Hydrozoa (Class)	0.0003
13/11/2008	ETP Coral	DDI	Desmophyllum dianthus	Desmophyllum dianthus	0.0003
13/11/2008	ETP Coral	CAY	Caryophyllia spp	Caryophyllia spp.	0.0000
12/11/2008	ETP Coral	ISI	Bamboo corals	Isididae	0.0166
12/11/2008	ETP Coral	ISI	Bamboo corals	Isididae	0.0076
12/11/2008	ETP Coral	CUP	Stony cup corals	Flabellidae, Fungiacyathidae (Families) and some spp. in Caryophyllidae (Family)	0.0016
12/11/2008	ETP Coral	GOC	Gorgonian coral	Gorgonacea (Order)	0.0007
12/11/2008	ETP Coral	DDI	Desmophyllum dianthus	Desmophyllum dianthus	0.0002
12/11/2008	ETP Coral	CAY	Caryophyllia spp	Caryophyllia spp.	0.0002
12/11/2008	ETP Coral	DDI	Desmophyllum dianthus	Desmophyllum dianthus	0.0001
12/11/2008	ETP Coral	SPN	Sea pen		0.0000
2/11/2008	ETP Coral	BTP	Bathypathes spp.	Bathypathes spp.	0.0001
2/11/2008	ETP Coral	PTP	Parantipathes spp.	Parantipathes spp.	0.0001
31/10/2008	ETP Coral	PAB	Bubblegum coral	Paragorgia arborea	0.0004
28/10/2008	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0010
Date of Interaction	Organism type	Species Code	Common name	Scientific name	Observed bycatch (ORH target tows only) (t)
27/10/2008	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	0.0030
27/10/2008	ETP Coral	COB	Black coral	Antipatharia (Order)	0.0010
23/10/2008	ETP Coral	SVA	Solenosmilia variabilis	Solenosmilia variabilis	1.0000
23/10/2008	ETP Coral	CRE	White hydrocoral	Calyptopora reticulata	0.0010
23/10/2008	ETP Coral	GDU	Bushy hard coral	Goniocorella dumosa	0.0500

23/10/2008	ETP Coral	CRE	White hydrocoral	Calyptopora reticulata	0.0010
19/10/2008	ETP Coral	COB	Black coral	Antipatharia (Order)	0.0002
19/10/2008	ETP Coral	HDF	Feathery hydroids	Leptomeduseae (Order) and Anthoathecatae (Order) excluding family Stylasteridae	0.0001
19/10/2008	ETP Coral	THO	Bottlebrush coral	Thouarella spp.	0.0001
18/10/2008	ETP Coral	ERO	Deepwater branching coral	Enallopsammia rostrata	0.0024
18/10/2008	ETP Coral	HDF	Feathery hydroids	Leptomeduseae (Order) and Anthoathecatae (Order) excluding family Stylasteridae	0.0001
18/10/2008	ETP Coral	COB	Black coral	Antipatharia (Order)	0.0001
18/10/2008	ETP Coral	COB	Black coral	Antipatharia (Order)	0.0001
16/10/2008	ETP Coral	CRE	White hydrocoral	Calyptopora reticulata	0.0004
16/10/2008	ETP Coral	CRE	White hydrocoral	Calyptopora reticulata	0.0001
13/10/2008	ETP Coral	MOC	Madrepora oculata	Madrepora oculata	0.0006
13/10/2008	ETP Coral	PAB	Bubblegum coral	Paragorgia arborea	0.0002
13/10/2008	ETP Coral	MOC	Madrepora oculata	Madrepora oculata	0.0001
12/10/2008	ETP Coral	GDU	Bushy hard coral	Goniocorella dumosa	0.0005
11/10/2008	ETP Coral	GDU	Bushy hard coral	Goniocorella dumosa	3.0000
8/10/2008	ETP Coral	COB	Black coral	Antipatharia (Order)	0.0001
6/10/2008	ETP Coral	GDU	Bushy hard coral	Goniocorella dumosa	0.0017
6/10/2008	ETP Coral	GDU	Bushy hard coral	Goniocorella dumosa	0.0050
2/10/2008	ETP Coral	ERO	Deepwater branching coral	Enallopsammia rostrata	0.0020
2/10/2008	ETP Coral	DDI	Desmophyllum dianthus	Desmophyllum dianthus	0.0001
2/10/2008	ETP Coral	CAY	Caryophyllia spp	Caryophyllia spp.	0.0001
2/10/2008	ETP Coral	ERO	Deepwater branching coral	Enallopsammia rostrata	0.0001
Total ETP Coral bycatch [2008-09 to 2012-13] (t)					12.6799
Average ETP Coral bycatch [2008-09 to 2012-13] (t)					0.0152
Total bycatch [2008-09 to 2012-13 without <1 t events in 2008-2009] (t)					2.6799
Average bycatch [2008-09 to 2012-13 without <1 t events in 2008-2009] (t)					0.0032

ORH7A (INCLUDING WESTPAC BANK)

Table 3: ORH7A (& *Westpac Bank) – Observed ETP Coral Incidental bycatch from target orange roughy fishery over the last 5 fishing years (2008-09 to 2012-13)

■ Taken in the Westpac Bank

Date of Interaction	Organism type	Species Code	Common name	Scientific name	Observed bycatch (ORH target tows only) (t)
8/07/2012	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0001
6/07/2012	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0001
5/07/2012	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0001
5/07/2012	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0001
4/07/2012	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0001
4/07/2012	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0001
1/07/2012	ETP Coral	EPZ	Gorgonian coral	Gorgonacea (Order)	0.0001
1/07/2012	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0001
1/07/2012	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0001
1/07/2012	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0001
30/06/2012	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0001
30/06/2012	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0001
30/06/2012	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0001
30/06/2012	ETP Coral	EPZ	Gorgonian coral	Gorgonacea (Order)	0.0001
30/06/2012	ETP Coral	EPZ	Gorgonian coral	Gorgonacea (Order)	0.0001
29/06/2012	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0001
29/06/2012	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0001
28/06/2012	ETP Coral	EPZ	Black coral	Antipatharia (Order)	0.0001
28/06/2012	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0001
2/07/2011	ETP Coral	EPZ	Bamboo corals	Isididae	0.0001
27/06/2010	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0001
27/06/2010	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0001
4/07/2009	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0010
3/07/2009	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0020
2/07/2009	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0010
1/07/2009	ETP Coral	PMN	Primnoa spp.	Primnoa spp.	0.0010
27/06/2009	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0010
27/06/2009	ETP Coral	EPZ	Epizoanthus spp.	Epizoanthus spp.	0.0010
Total ETP Coral bycatch [2008-09 to 2012-13] (t)					0.0091
Average bycatch [2008-09 to 2012-13] (t)					0.0003