

Distribution of four ordres of corals observed by ROV survey

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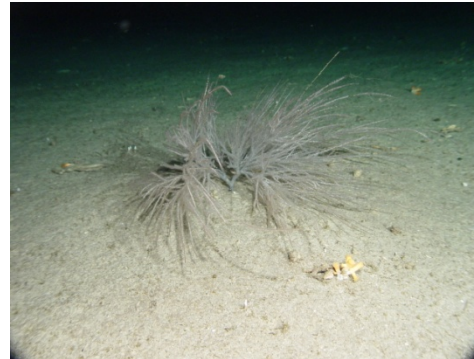
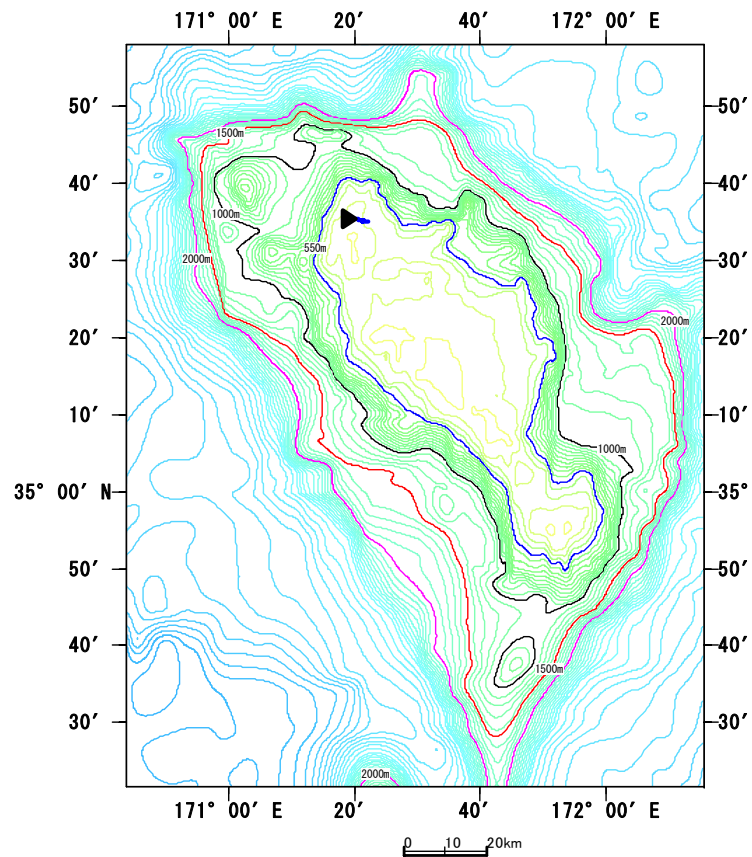
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Table1. Information on ROV observation.

Station	Seamount		GMT		Local Time		Position			Depth (m)	Observed Distance
			Date	Time	Date	Time	Latitude	Longitude			
1	Colahan	Observation start	6-Sep	20:28:15	7-Sep	8:28:15	31-01.58	N 175-52.99	E	286	0.81609km
		Observation stop	6-Sep	21:16:14	7-Sep	9:16:14	31-01.91	N 175-53.13	E	530	
2	Colahan	Observation start	8-Sep	1:20:23	8-Sep	13:20:23	31-01.02	N 175-53.28	E	274.8	0.86830km
		Observation stop	8-Sep	2:39:07	8-Sep	14:39:07	31-01.01	N 175-53.49	E		
3	Colahan	Observation start	7-Sep	2:02:33	7-Sep	14:02:33	31-02.02	N 175-54.17	E		0.74875km
		Observation stop	7-Sep	2:58:42	7-Sep	14:58:42	31-01.86	N 175-54.26	E		
4	SE Kammu	Observation start	8-Sep	20:43:42	9-Sep	8:43:42	32-01.30	N 173-06.58	E	349.1	1.92203km
		Observation stop	8-Sep	21:49:41	9-Sep	9:49:41	32-02.03	N 173-05.95	E		
5	SE Kammu	Observation start	9-Sep	20:50:38	10-Sep	8:50:38	32-01.41	N 173-06.44	E	347.7	3.87226km
		Observation stop	9-Sep	22:43:02	10-Sep	10:43:02	32-02.74	N 173-04.83	E		
6	SE Kammu	Observation start	10-Sep	1:32:52	10-Sep	13:32:52	32-04.18	N 173-03.37	E	359.3	1.89044km
		Observation stop	10-Sep	2:35:13	10-Sep	14:35:13	32-04.74	N 173-02.50	E		
7	NW Kammu Summit	Observation start	11-Sep	20:40:38	12-Sep	8:40:38	32-15.60	N 172-51.96	E	378.4	4.09170km
		Observation stop	11-Sep	22:43:48	12-Sep	10:43:48	32-16.61	N 172-49.85	E		
8	NW Kammu Slope	Observation start	12-Sep	1:31:57	12-Sep	13:31:57	32-16.38	N 172-48.61	E	384.3	1.326km
		Observation stop	12-Sep	2:25:56	12-Sep	14:25:56	32-16.72	N 172-47.96	E		
9	Yuryaku Slope	Observation start	13-Sep	20:38:59	14-Sep	8:38:59	32-39.87	N 172-17.02	E	474.2	2.36158km
		Observation stop	13-Sep	22:15:21	14-Sep	10:15:21	32-39.92	N 172-15.66	E		
10	Yuryaku Summit	Observation start	14-Sep	1:34:25	14-Sep	13:34:25	32-41.12	N 172-17.53	E	393	0.98863km
		Observation stop	14-Sep	2:32:20	14-Sep	14:32:20	32-41.21	N 172-17.00	E	389.9	
11	Koko South area	Observation start	16-Sep	21:01:46	17-Sep	9:01:46	34-55.01	N 171-58.23	E	425	1.88241km
		Observation stop	16-Sep	22:47:23	17-Sep	10:47:23	34-54.54	N 171-59.09	E		
12	Koko South area	Observation start	17-Sep	1:22:36	17-Sep	13:22:36	34-55.23	N 171-50.87	E	278	1.09528km
		Observation stop	17-Sep	2:10:48	17-Sep	14:10:48	34-55.39	N 171-51.50	E		
13	Koko Middle area	Observation start	18-Sep	20:34:04	19-Sep	8:34:04	35-23.66	N 171-44.19	E	360	2.70549km
		Observation stop	18-Sep	22:34:00	19-Sep	10:34:00	35-22.61	N 171-44.99	E		
14	Koko Middle arae	Observation start	19-Sep	1:23:06	19-Sep	13:23:06	35-20.90	N 171-38.58	E	313	0.74242km
		Observation stop	19-Sep	2:17:40	19-Sep	14:17:40	35-20.79	N 171-38.65	E		
15	Koko North area	Observation start	21-Sep	20:45:17	22-Sep	8:45:17	35-37.99	N 171-01.52	E		0.66524km
		Observation stop	21-Sep	21:17:00	22-Sep	9:17:00	35-37.98	N 171-01.91	E	580	
16	Koko North area	Observation start	22-Sep	1:25:17	22-Sep	13:25:17	35-35.26	N 171-20.94	E	354	1.06396km
		Observation stop	22-Sep	2:32:23	22-Sep	14:32:23	35-35.20	N 171-21.45	E	370	

Koko Seamount St16



Ex. Antipathidae sp.
Antipatharia spp.



Ex. Balanophyllia sp.
Scleractinia spp.



Ex. Gorgonaria sp.
Gorgonaceae spp.

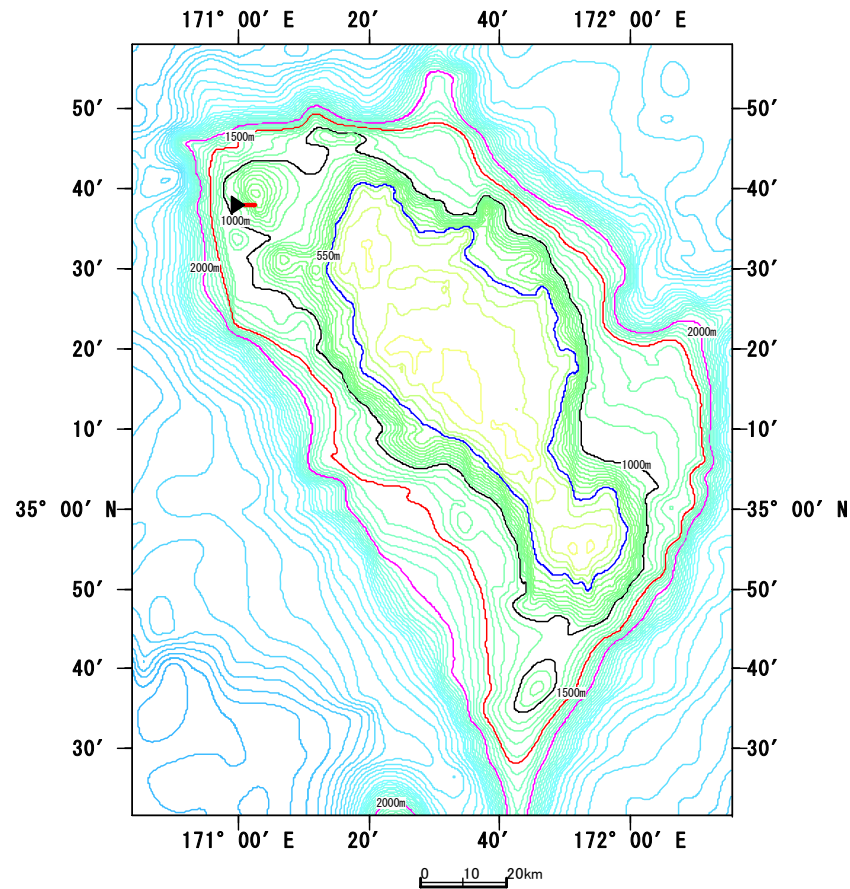
Information

Date: 2006/9/22

Position: 35-35.36N, 171-20.49E

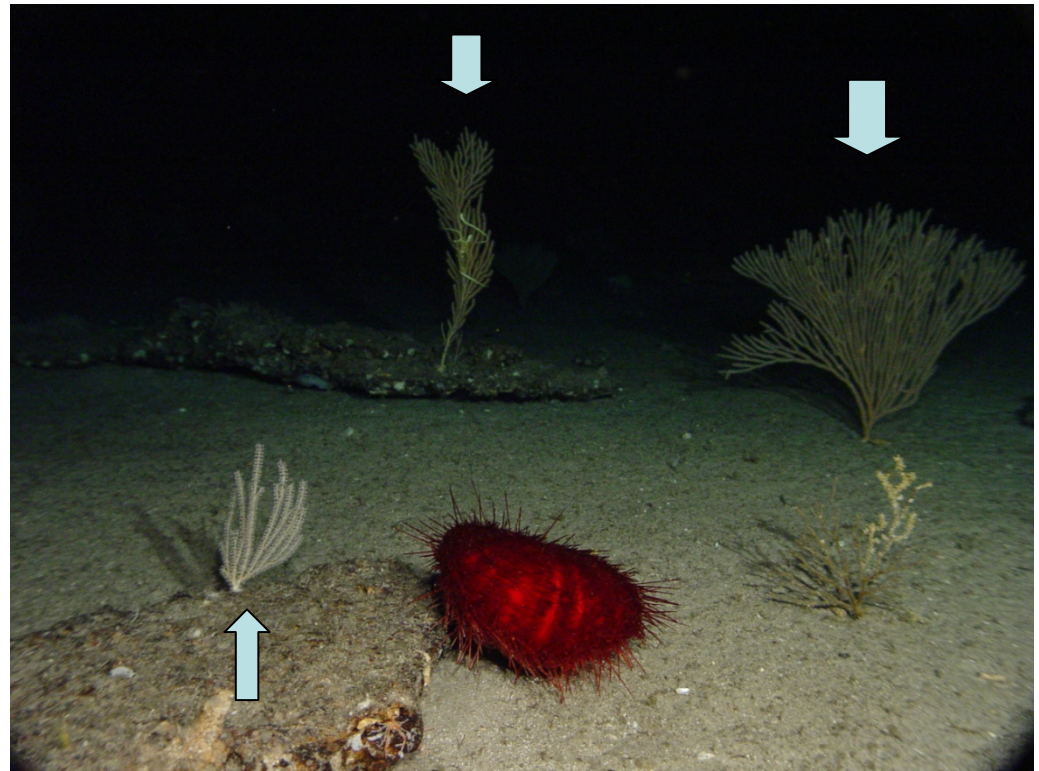
Observed Distance: 1.06396km

Koko Seamount St15



Gorgonacea spp.

Primnoidae sp.1



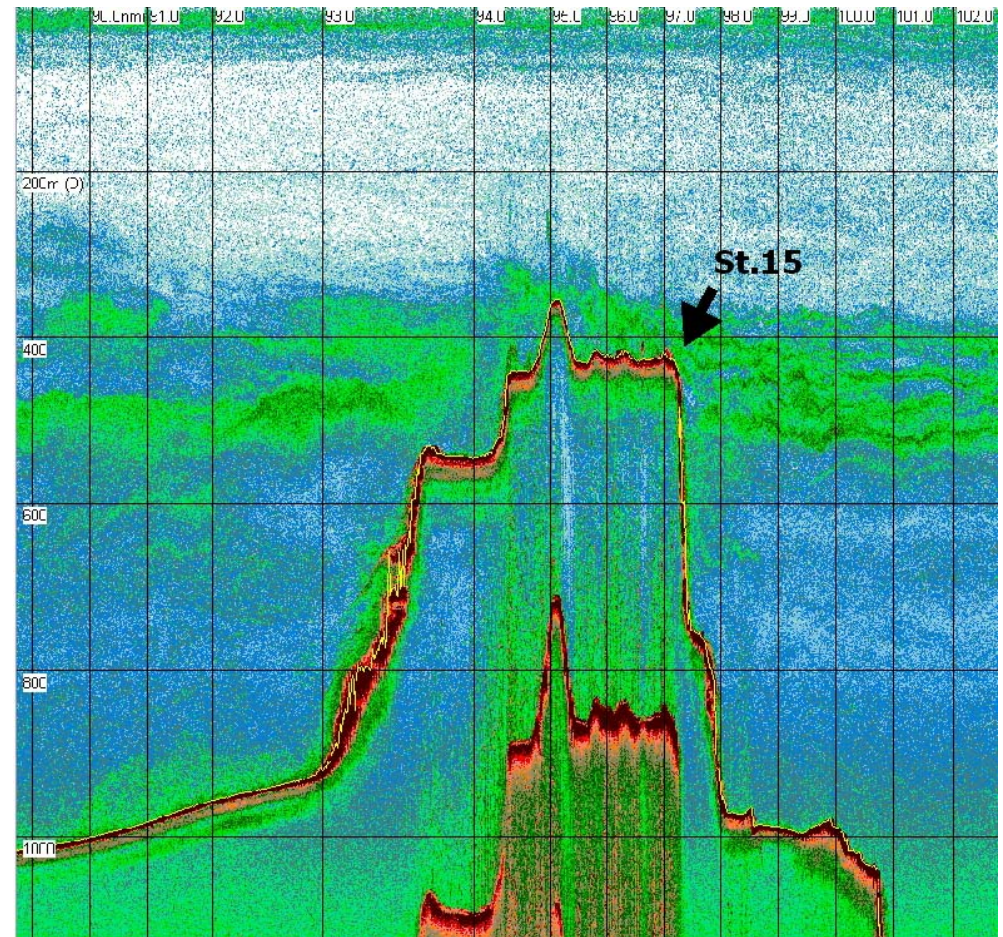
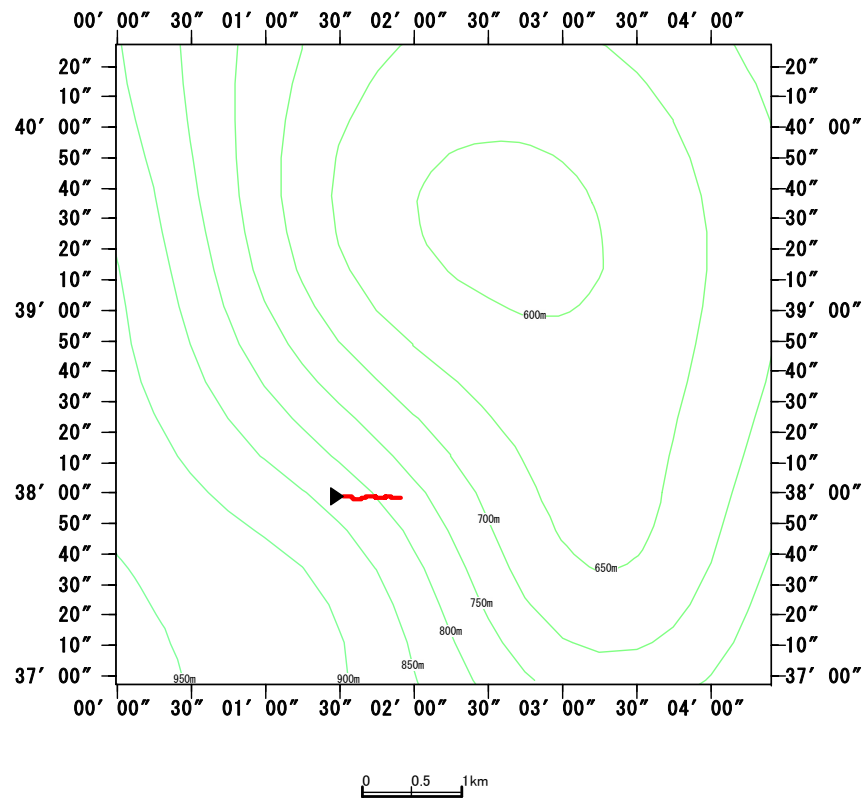
Calyptrophora sp.

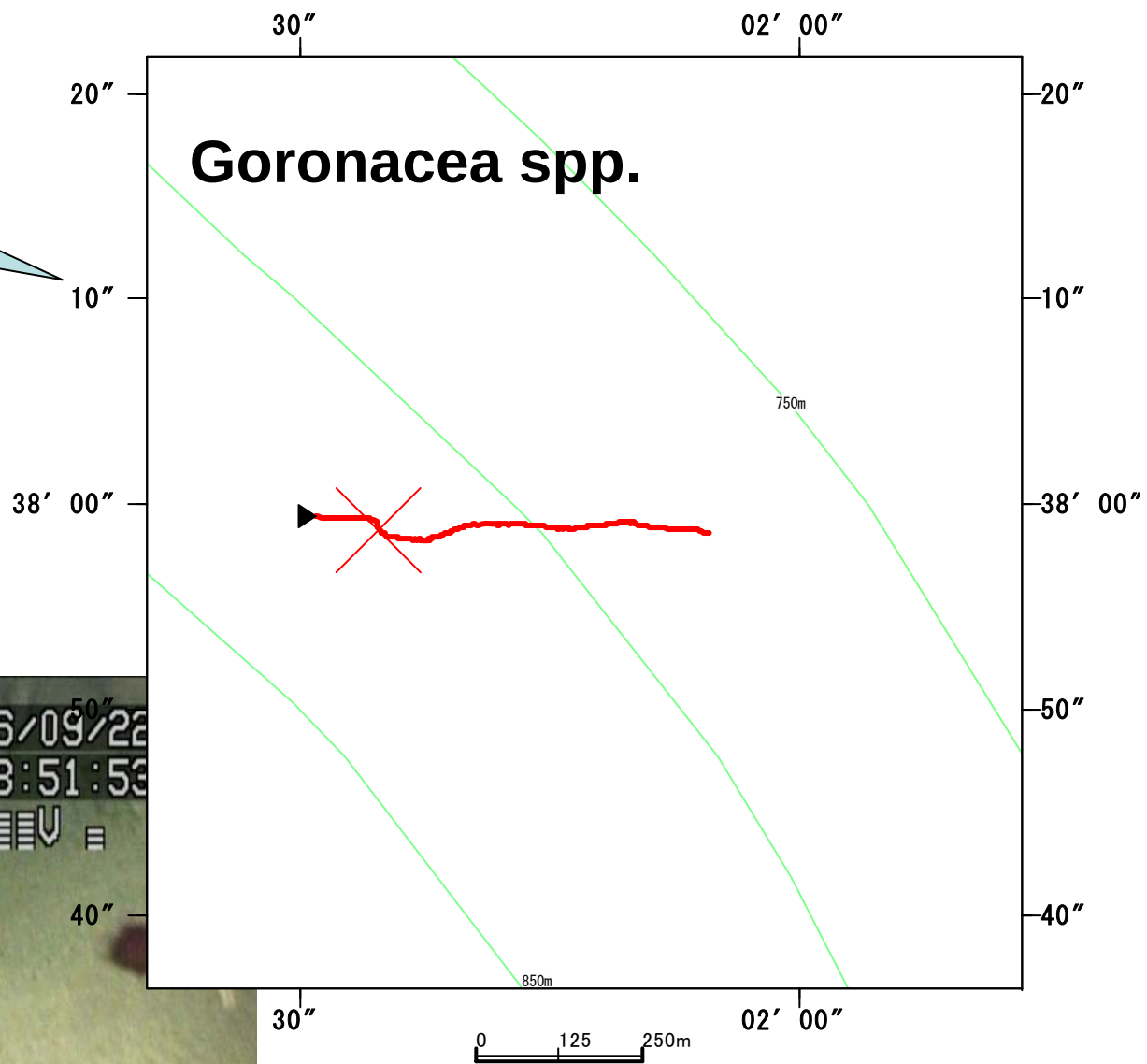
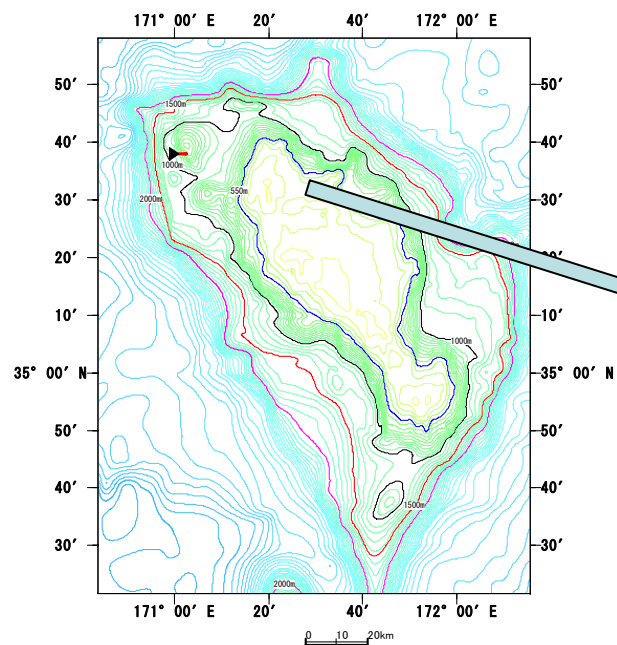
Date: 2006/9/22

Position: 35-37.97N, 171-00.98E

Observed distance: 0.66524km

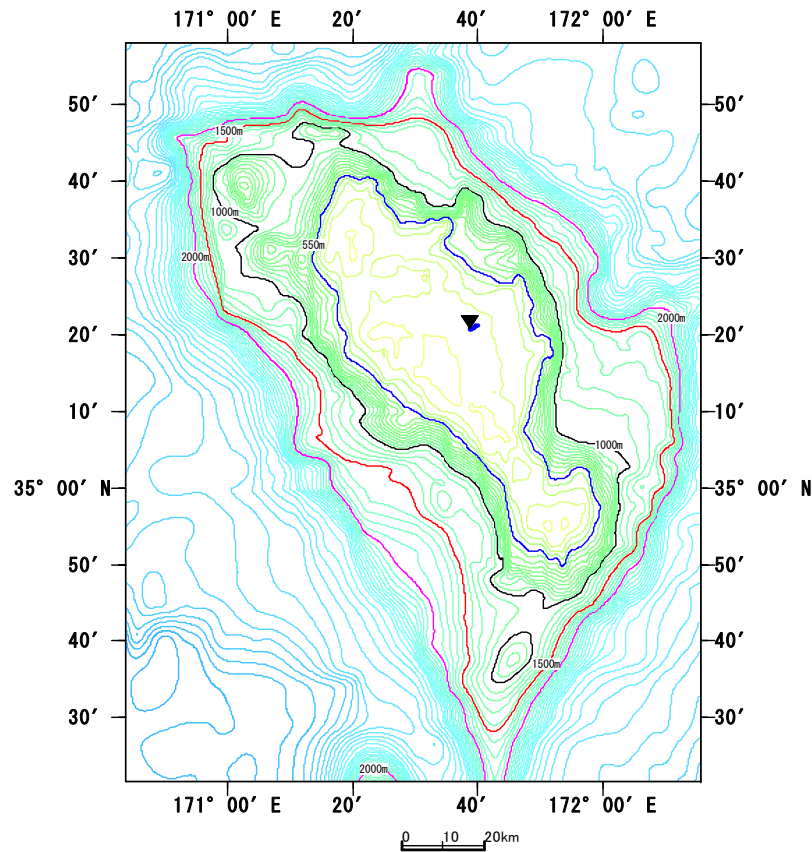
St15





X indicate the location that many Gorgonacea spp. were observed.

Koko Seamount St14



Date: 2006/9/19

Position: 35-20.93N, 171-38.63E

Observed distance: 0.74242km



Ex. Alcyoniidae sp.

Alcyonacea spp.



Ex. *Dendrophyllia* sp.

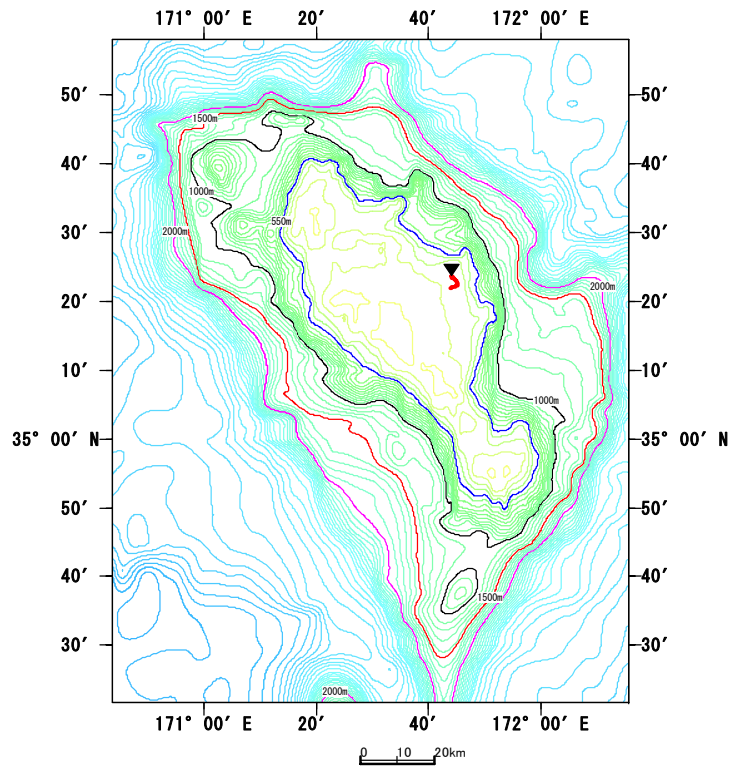
Scleractinia spp.



Ex. Antipathidae sp.

Antipatharia spp.

Koko Seamount St13



Date: 2006/9/19

Position: 35-23.88N, 171-43.96E

Observed distance: 2.70549km



Ex. Alcyoniidae sp.

Alcyonacea spp.



Ex. *Enallopsammia rostrata*

Scleractinia spp.



Ex. Acanthogorgiidae sp.

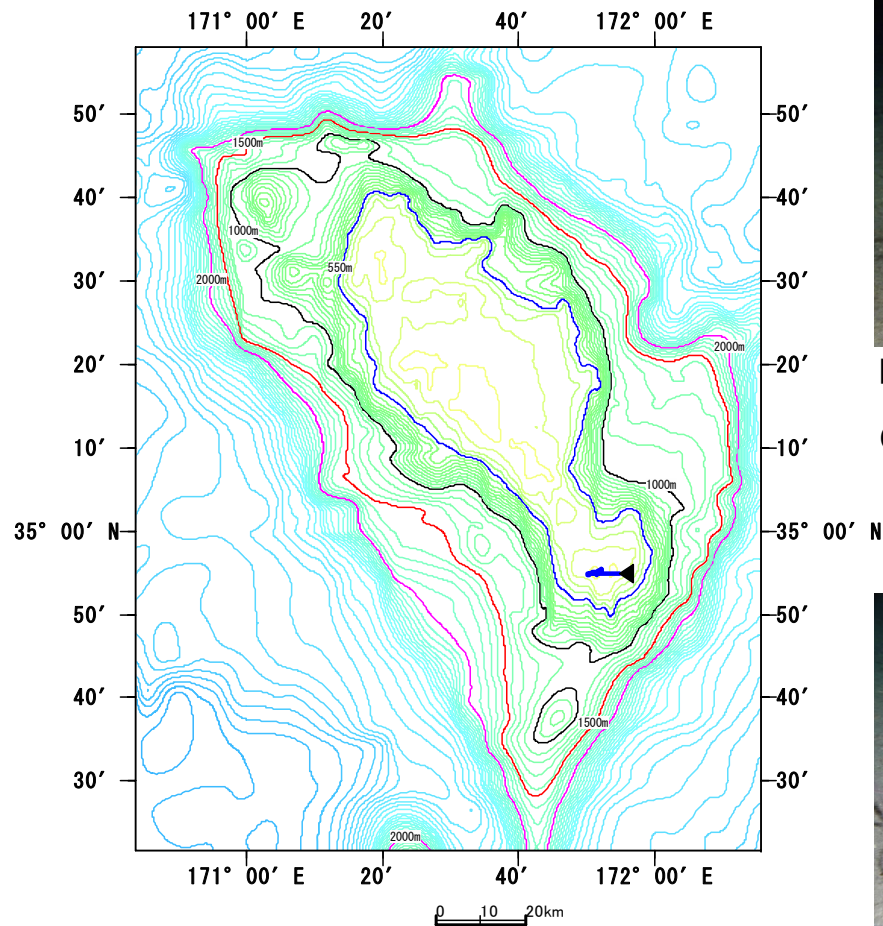
Gorgonacea spp.



Ex. *Antipatharia* sp.

Antipatharia spp.

Koko Seamount St12



Date: 2006/9/17

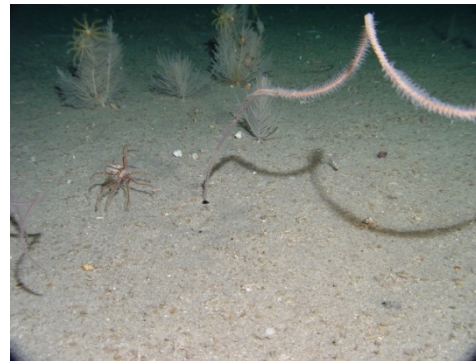
Position: 34-55.04N, 171-50.42E

Observed distance: 1.09528km



Ex. *Callogorgia* sp.

Gorgonacea spp.



Ex. *Cirrhopathes* sp.

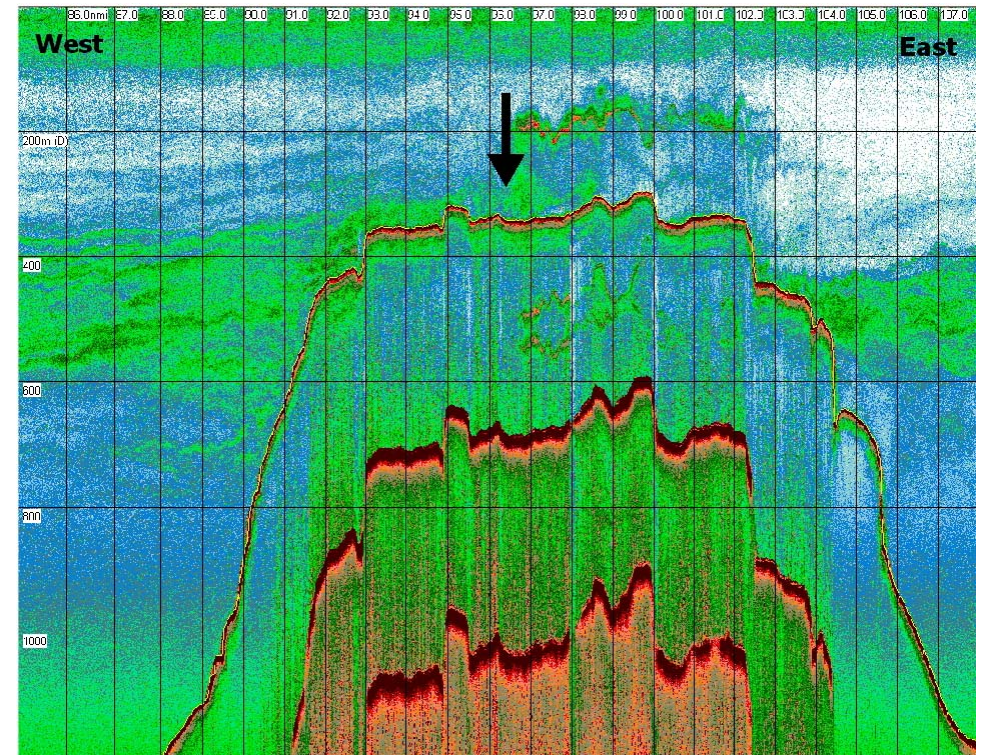
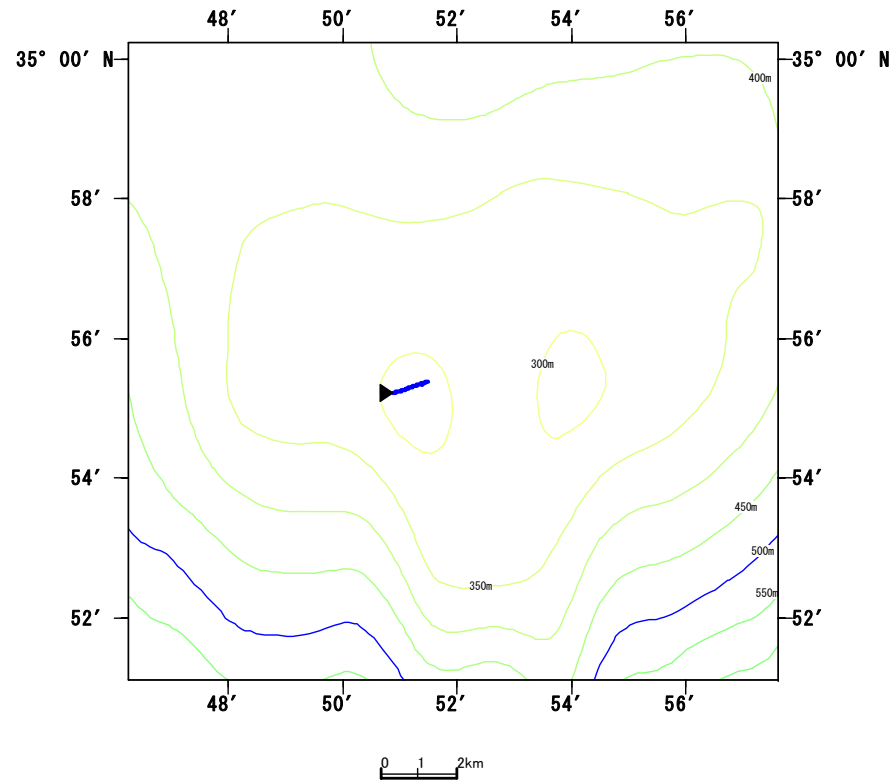
Antipatharia spp.

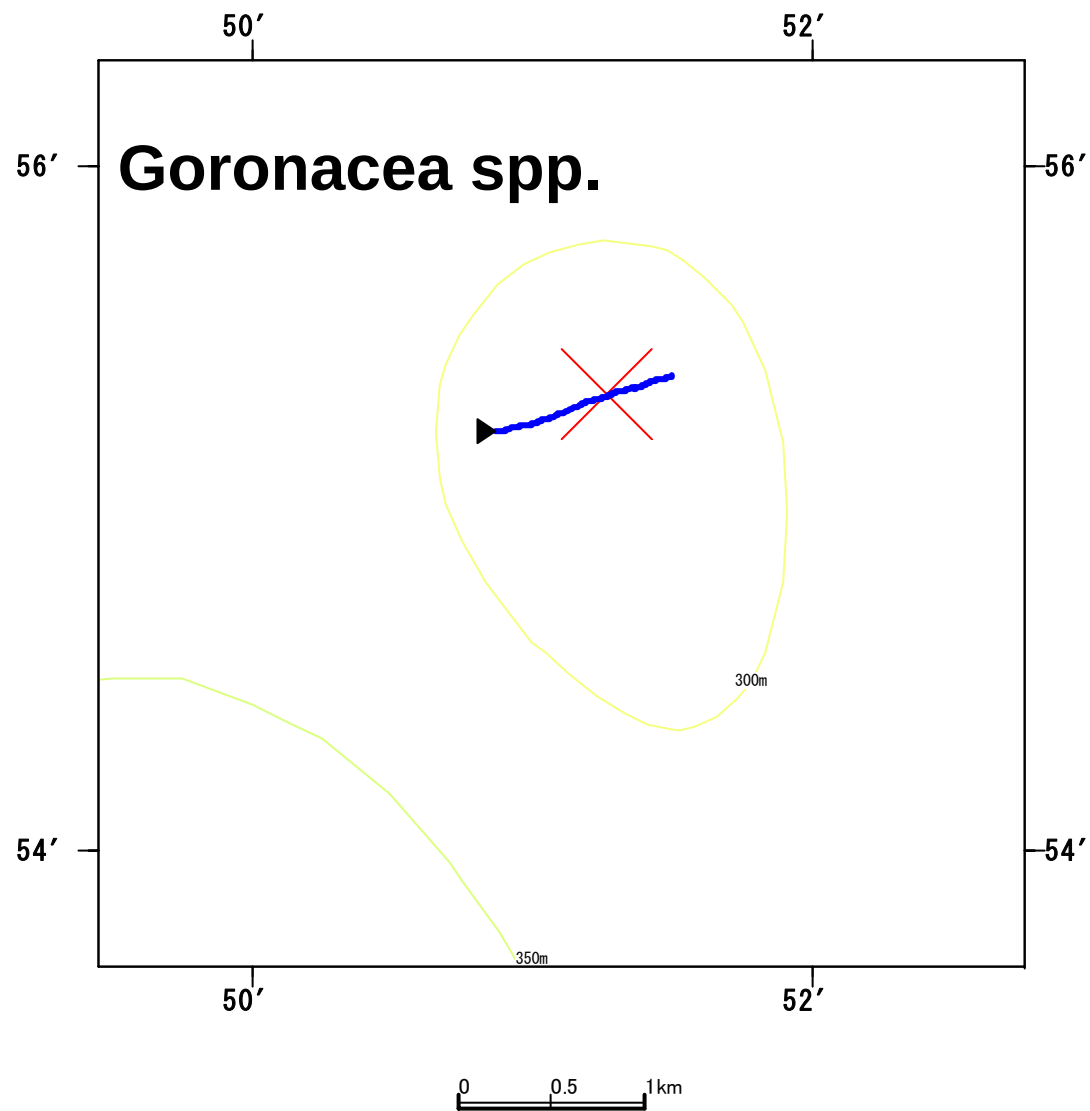
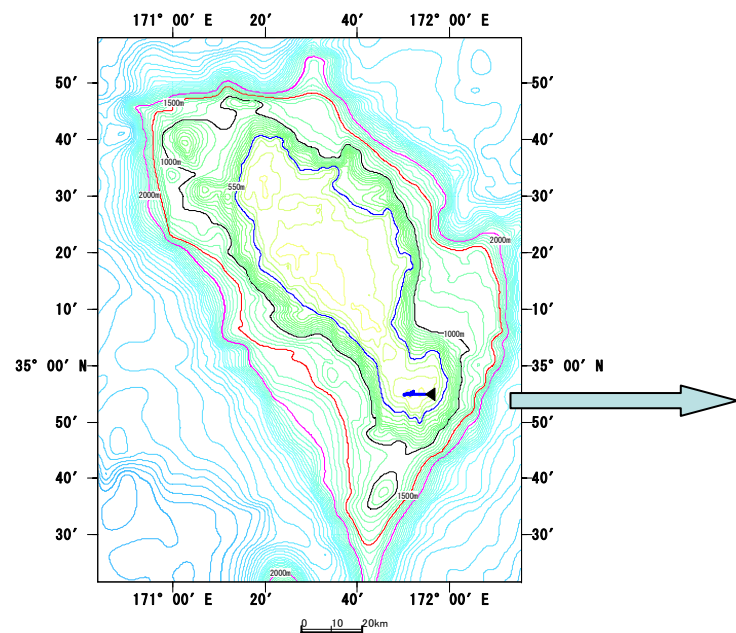


Ex. *Alcyoniidae* sp.

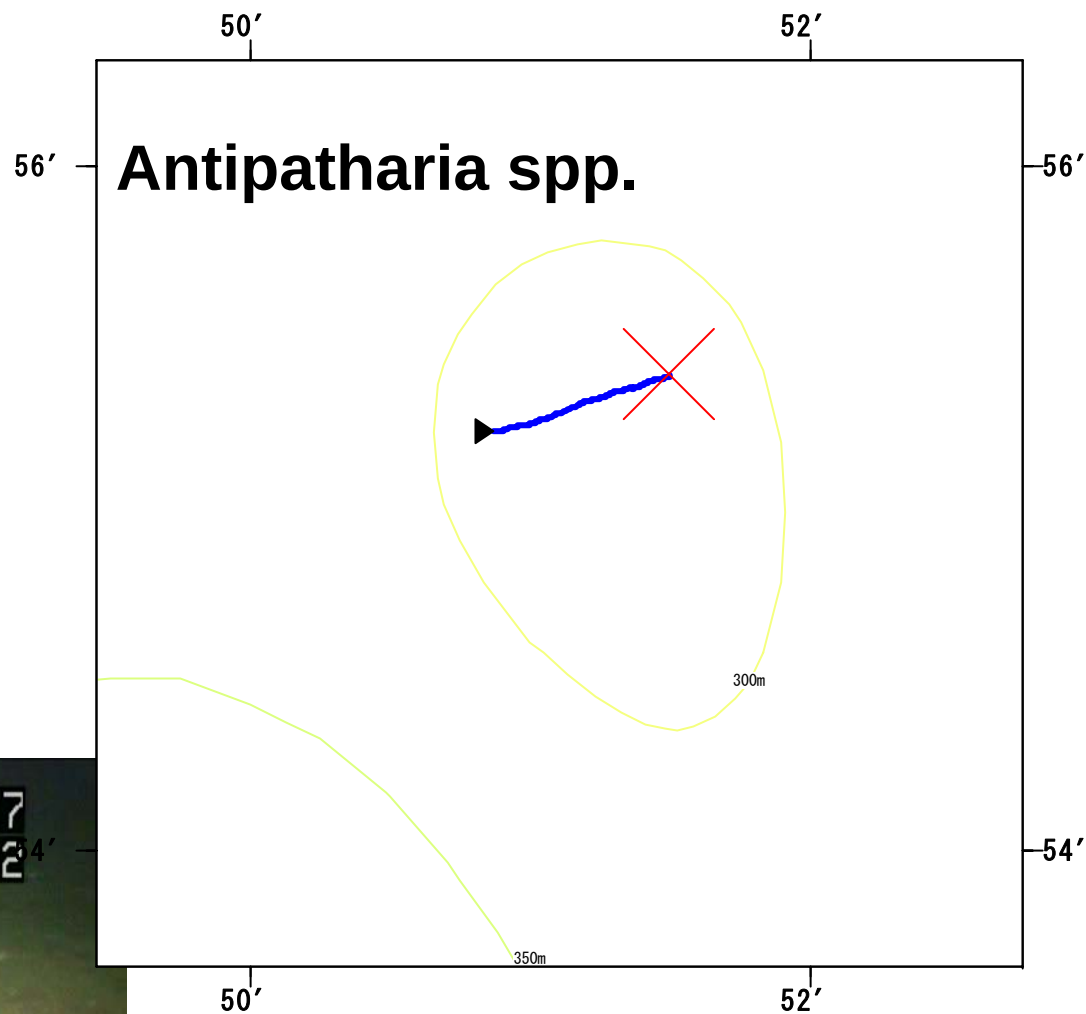
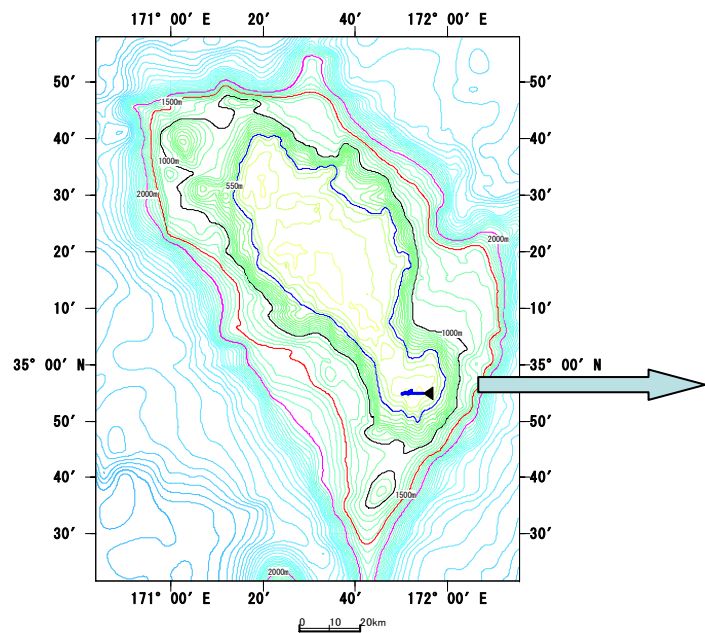
Alcyonacea spp.

St12



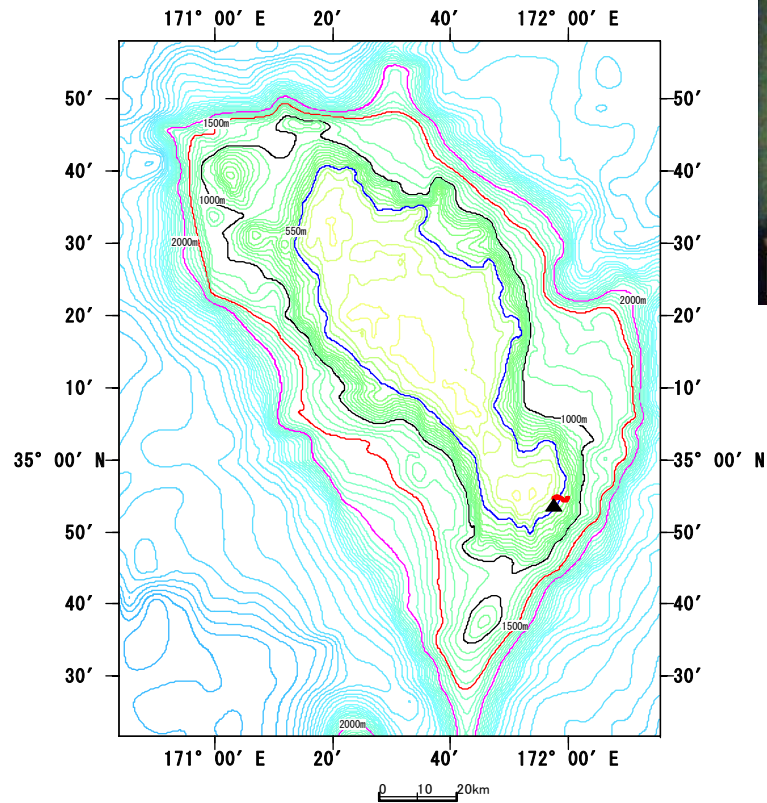


X indicate the location that many Goronacea spp. were observed.



X indicate the location that many Antipatharia spp. were observed.

Koko Seamount St11



Date: 2006/9/17

Position: 34-54.90N, 171-57.38E

Observed distance: 1.88241km



Ex. Antipatharia sp.

Antipatharia spp.



Ex. *Corallium* spp.

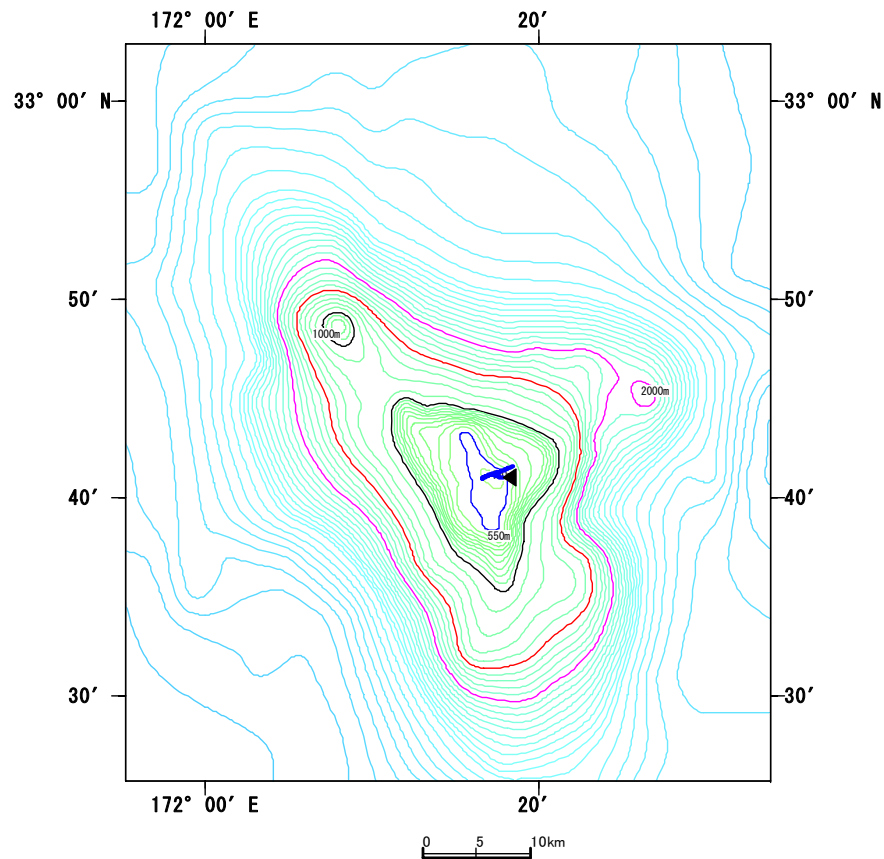
Scleractinia spp.



Ex. *Gorgonaria* sp.

Gorgonacea spp.

Yuryaku Seamount St10



Date: 2006/9/14

Position: 32-41.09N, 172-17.80E

Observed distance: 0.98863km

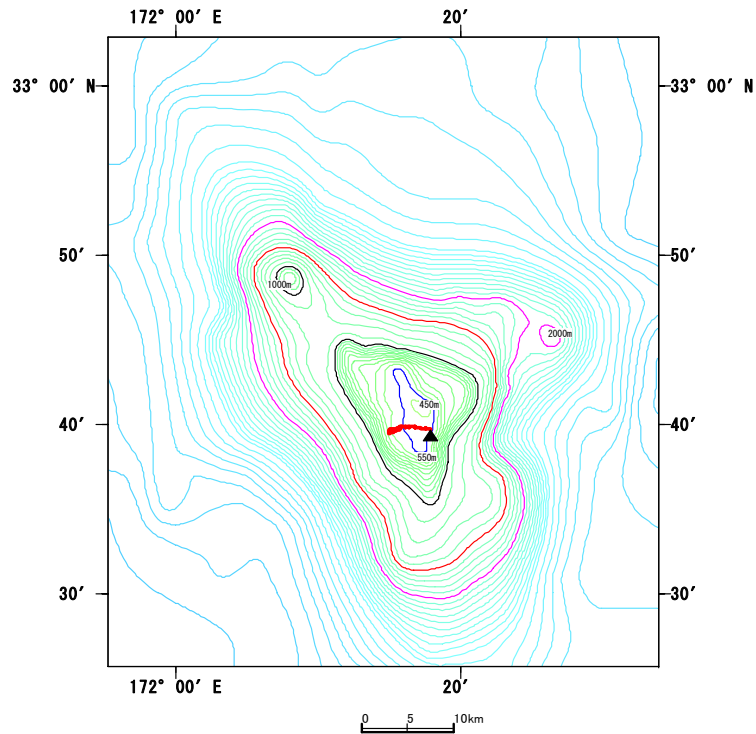


Gorgonacea sp.



Antipatharia sp.

Yuryaku Seamount St9



Date: 2006/9/14

Position: 32-39.84N, 172-17.49E

Observed distance: 2.36158km



Ex. *Isidella* sp.
Gorgonacea spp.



Ex. Antipathidae sp.
Antipatharia spp.

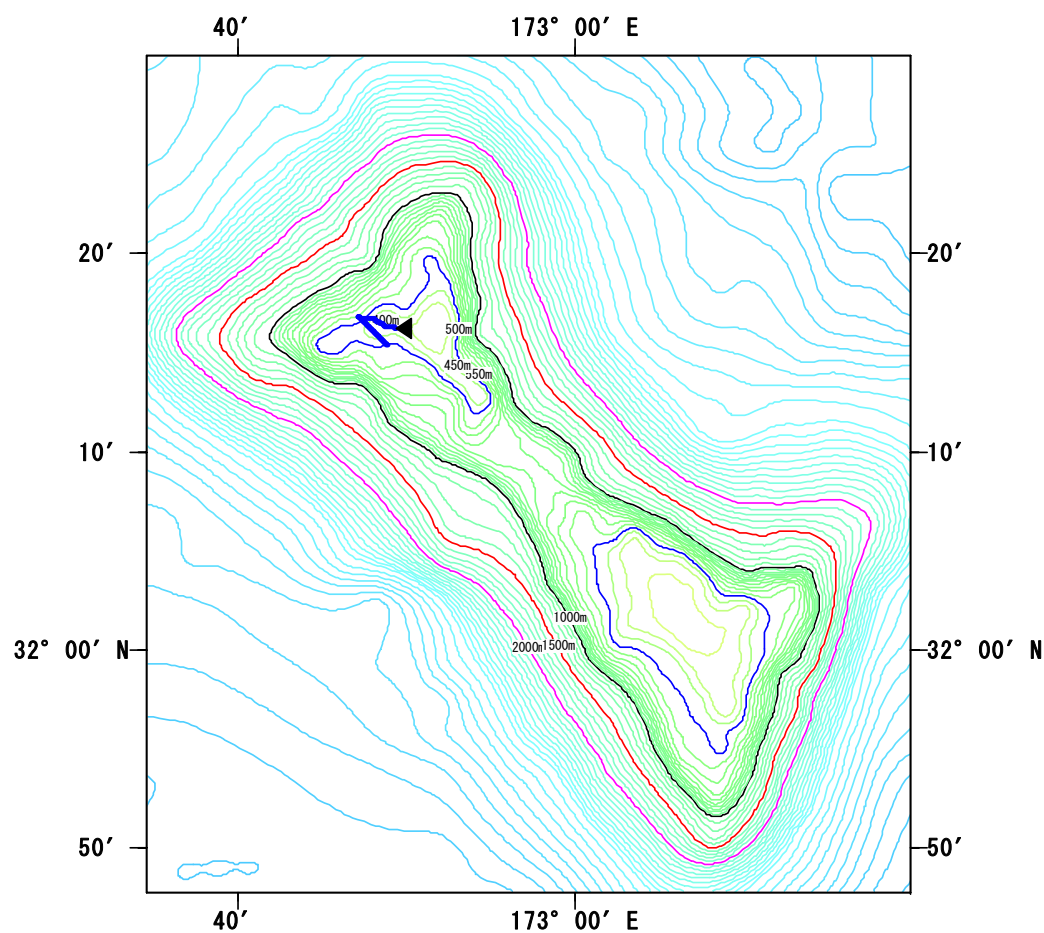


Ex. *Paraminabea* sp.
Alcyonacea spp.



Scleractinia sp.

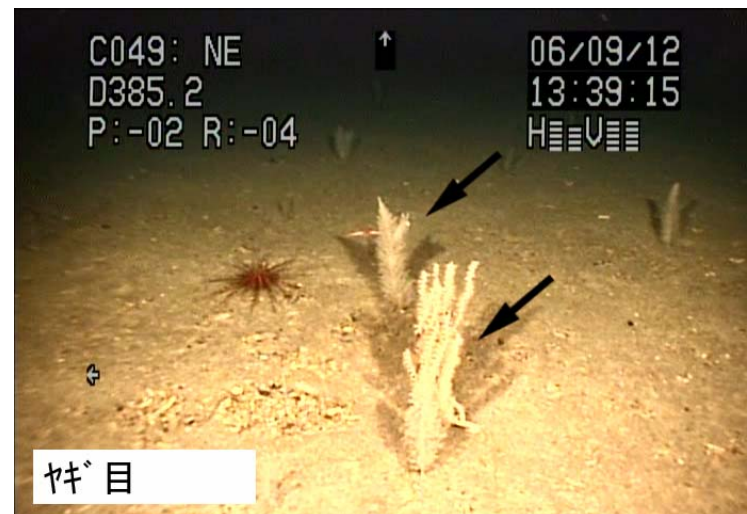
Kammu Seamount St8



Date: 2006/9/12

Position: 32-16.33N, 172-49.06E

Observed distance: 1.326km

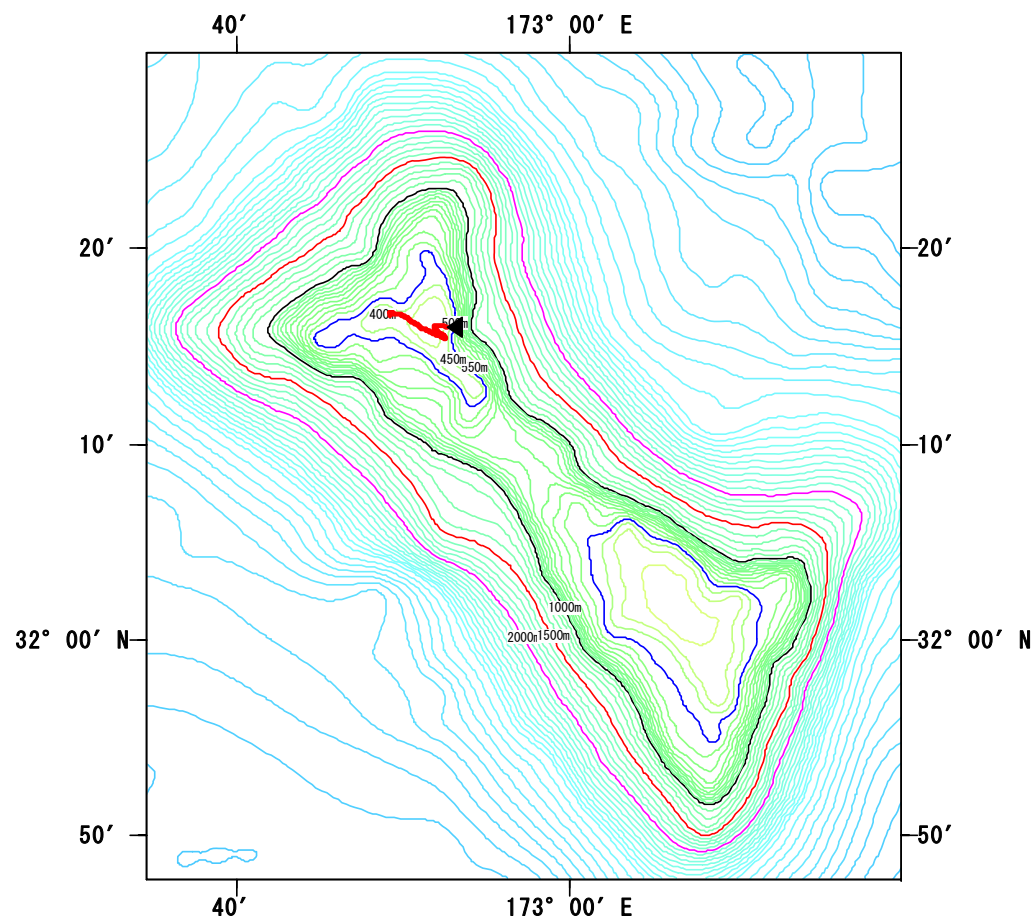


Gorgonacea spp.



Ex. *Flabellum* sp.
Scleractinia sp.

Kammu Seamount St7



Date: 2006/9/12

Position: 32-15.48N, 172-52.49E

Observed distance: 4.09170km



Ex. *Isidella* sp.

Gorgonacea spp.



Ex. *Flabellum* sp.

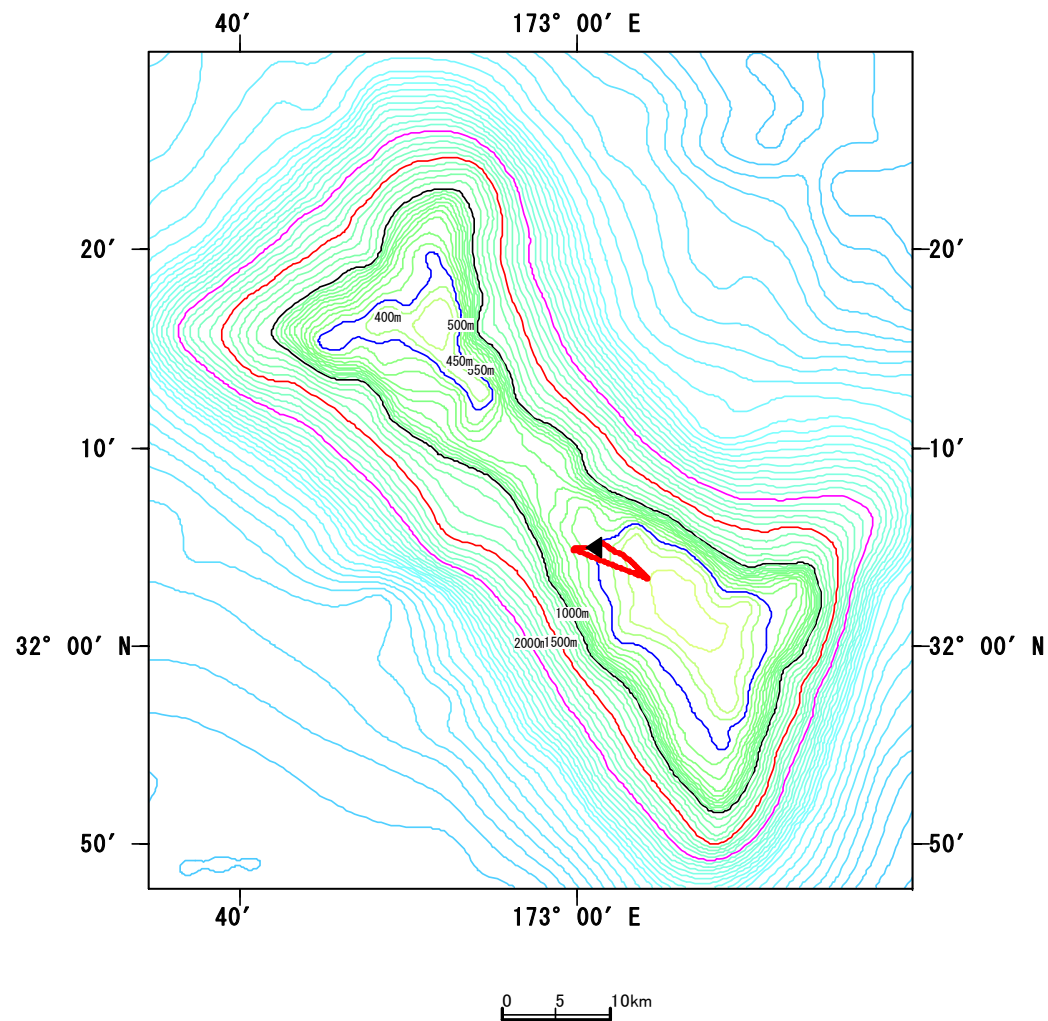
Scleractinia sp.



Ex. *Antipatharia* sp.

Antipatharia spp.

Kammu Seamount St6



Date: 2006/9/10

Position: 32-03.81N, 173-03.83E

Observed distance: 1.89044km



Ex. *Flabellum* sp.
Scleractinia sp.

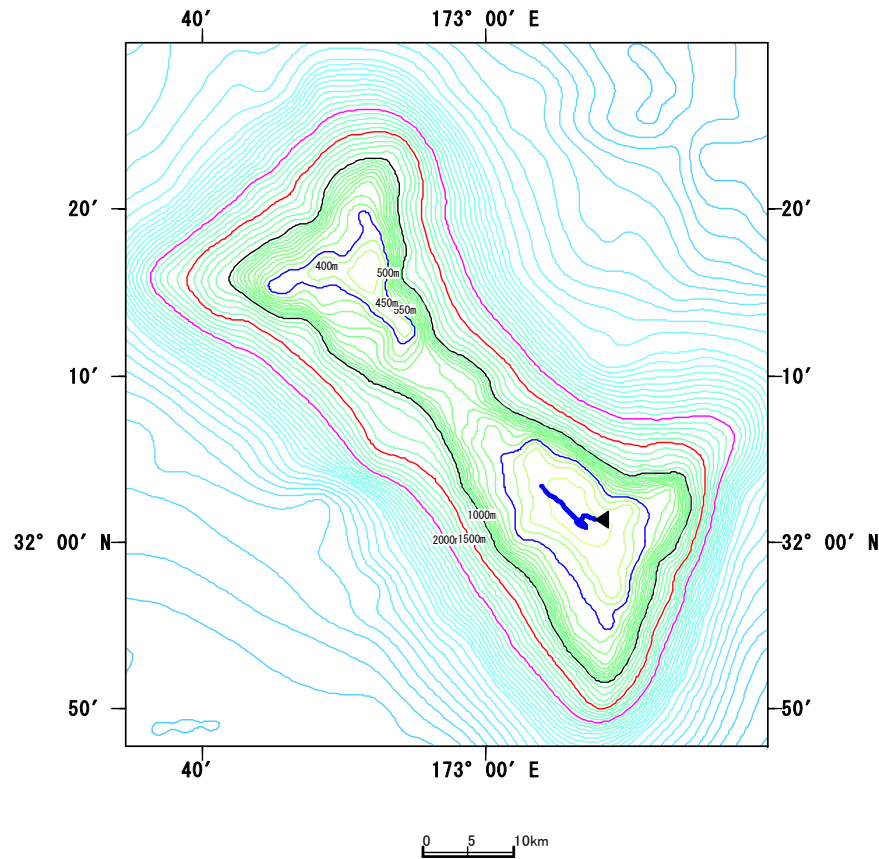


Ex. *Antipatharia* sp
Antipatharia spp.



Gorgonacea sp.

Kammu Seamount St5



Ex. *Flabellum* sp.

Scleractinia sp.



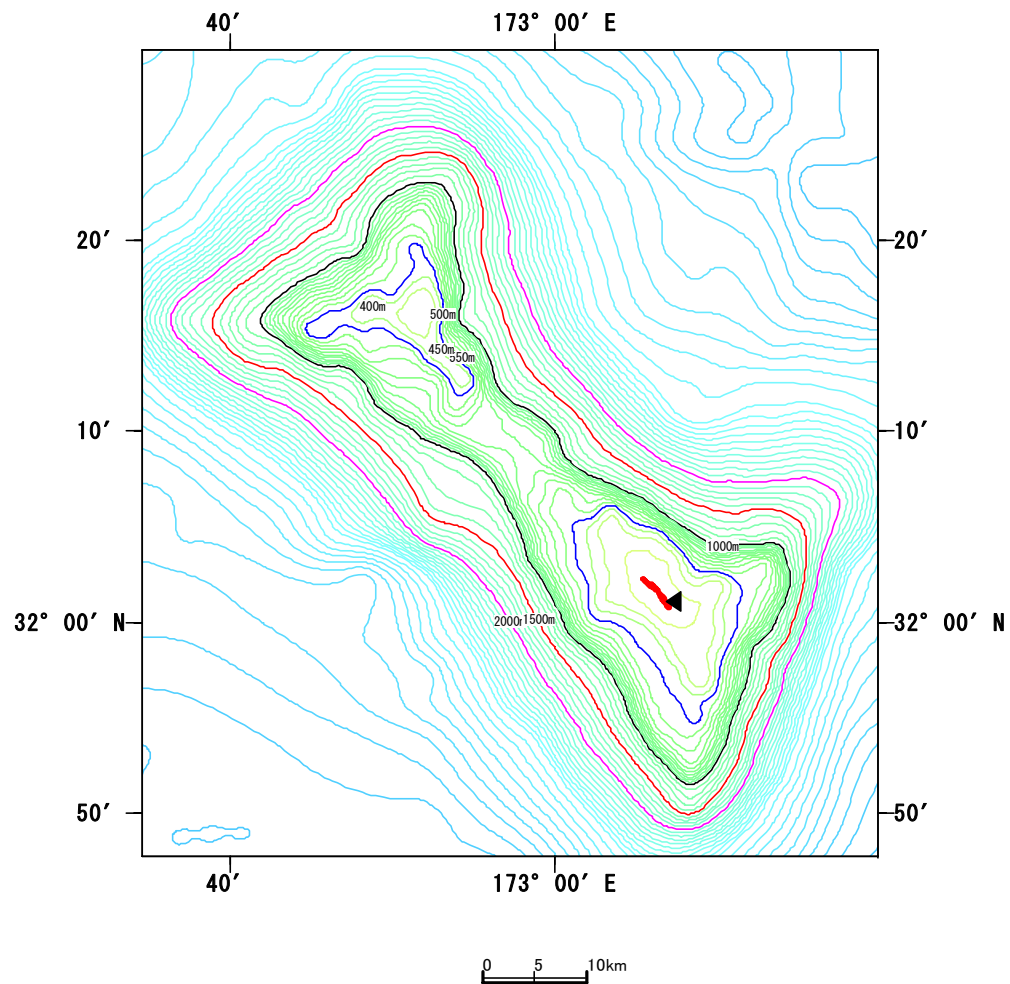
Ex. *Antipatharia* sp
Antipatharia spp.

Date: 2006/9/10

Position: 32-01.06N, 173-07.04E

Observed distance: 3.87226km

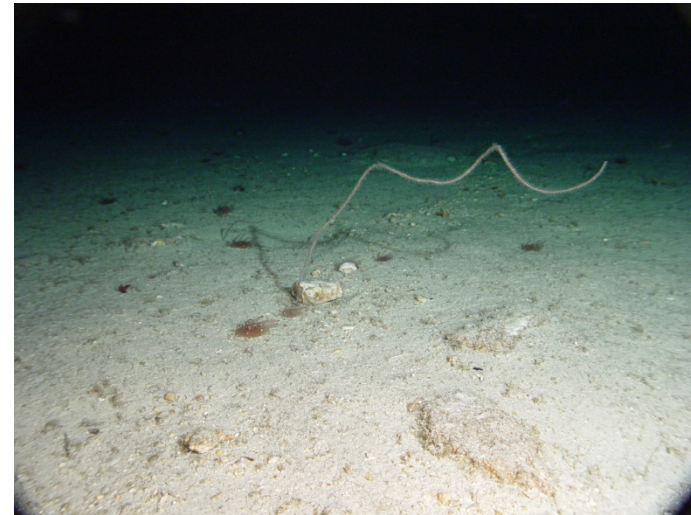
Kammu Seamount St4



Date: 2006/9/9

Position: 32-00.95N, 173-06.97E

Observed distance: 1.92203km

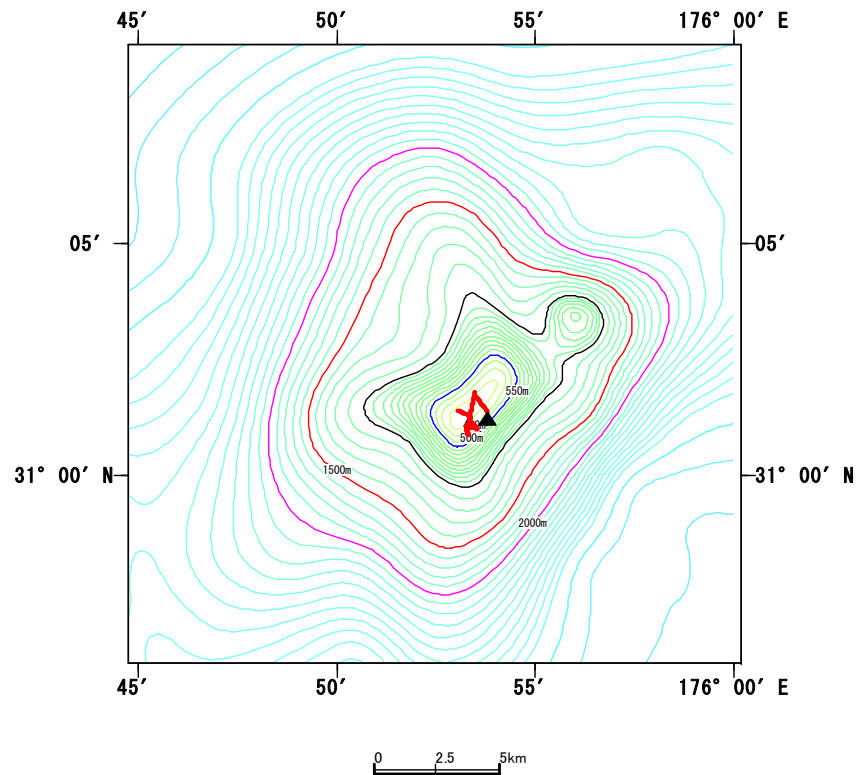


Ex. *Antipatharia* sp
Antipatharia spp.



Ex. *Flabellum* sp.
Scleractinia spp.

Colahan Seamount St3



Date: 2006/9/8

Position: 31-00.90N, 175-53.30E

Observed distance: 0.74875km

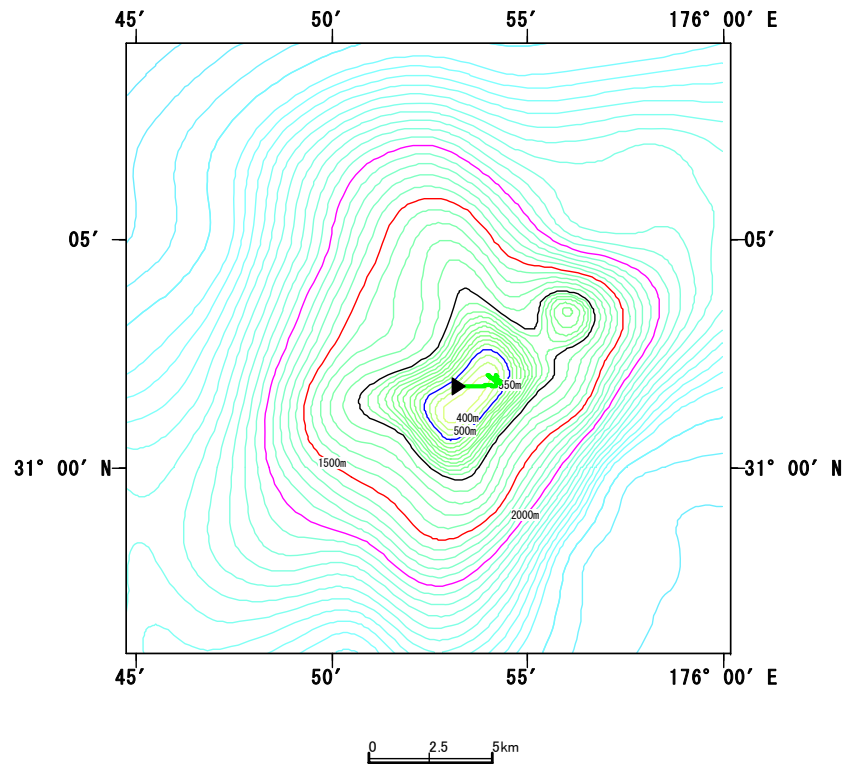


Ex. *Paraminabea* sp.
Alcyonacea spp.



Gorgonacea sp.

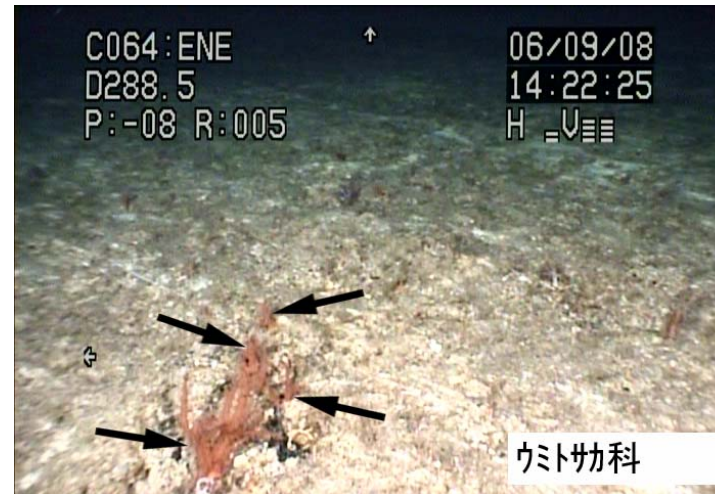
Colahan Seamount St2



Date: 2006/9/7

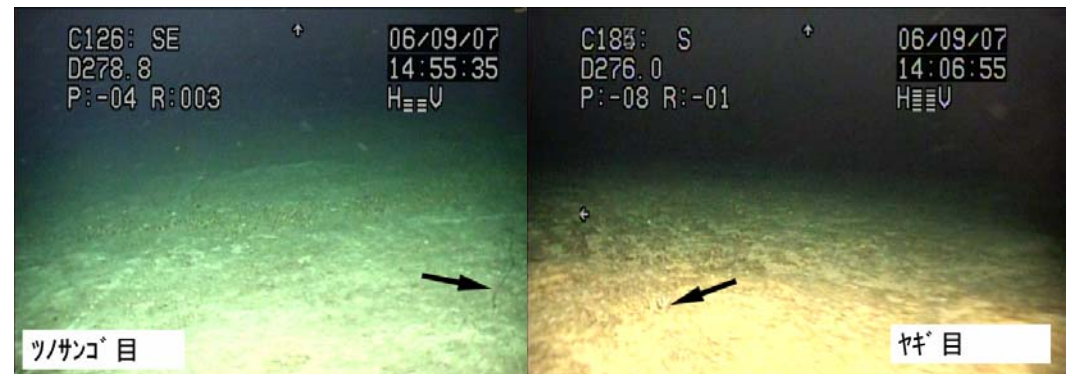
Position: 31-01.94N, 175-54.18E

Observed distance: 0.86830km



Ex. *Paraminabea* sp.

Alcyonacea spp.

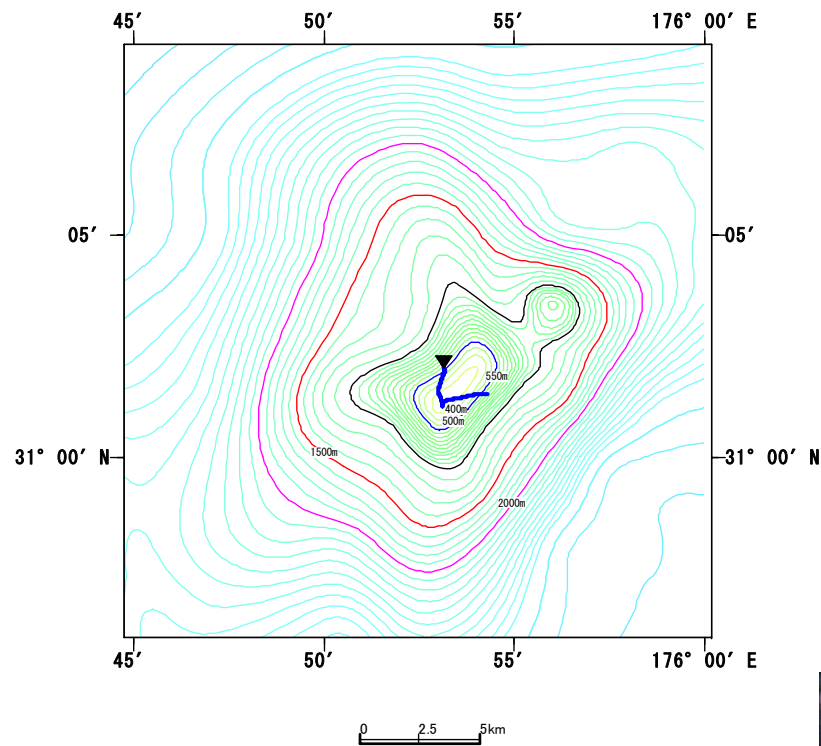


Ex. *Bathypathes* sp.

Antipatharia spp.

Gorgonacea sp.

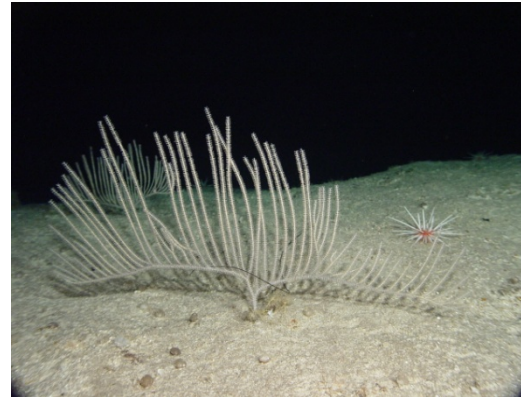
Colahan Seamount St1



Date: 2006/9/6

Position: 31-01.35N,

Observed distance: 0.81609km



Ex. *Calyptrophora* sp.

Gorgonacea spp.



Ex. *Bathypathes* sp.

Antipatharia spp.



Ex. *Paraminabea* sp.

Alcyonacea spp.

Summary

Table1. Four orders of corals observed by ROV in the North Pacific Seamounts group.

	Colahan			SE Kammu			NW Kammu	
	Summit	Summit	Summit	Summit	Summit	Summit	Slope	Summit
	1	2	3	4	5	6	7	8
Alcyonacea spp.	*	*	*	—	—	—	—	—
Gorgonacea spp	*	*	*	—	—	*	*	*
Scleractinia spp.	—	—	—	*	*	*	*	*
Antipatharia spp.	*	*	—	*	*	*	*	—

	Yuryaku		South Koko		Central Koko		North Koko	
	Slope	Summit	Slope	Summit	Slope	Summit	Slope	Summit
	9	10	11	12	13	14	15	16
Alcyonacea spp.	*	—	—	*	*	*	—	—
Gorgonacea spp	*	*	*	*	*	—	*	*
Scleractinia spp.	*	—	*	—	*	*	—	*
Antipatharia spp.	*	*	*	*	*	*	—	*

*: Existence of VMEs (Four order)

—: Absence of VMEs (Four order)