

**A PRELIMINARY REPORT ON THE THAI-DANISH BIOSHELF SURVEYS (1996–2000)
OF THE WEST COAST OF THAILAND, ANDAMAN SEA**

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ABSTRACT

The project ‘Biodiversity of the Andaman Sea Shelf (BIOSHELF)’ attempted to cover the west coast of Thailand, from the Burmese border in the north to the Malaysian border in the south. The objective of the project, during 1996–2000, was to expand our general knowledge of the diversity of benthos at depths down to 1000 m within the Thai Economic Exclusive Zone (EEZ). Ninety-eight stations from twelve transects were sampled at depths of 40–900 m, with an extra sixteen stations in the Thai EEZ and three near-shore stations, ten stations from Phang-nga Bay, three stations near Racha Yai Island, and three stations near Racha Noi Island. Materials were collected using the following equipment—Olsen box corer, Smith-McIntyre grab, Ockelmann detritus sledge, Percy-Rothlisberg epibenthic sledge, triangular dredge, heavy rectangular dredge, beam trawl, 2 m Agassiz trawl, otter trawl, and baited traps. Samples of polychaetes, crustaceans, molluscs, and fishes are currently being worked up. Some recent BIOSHELF material will be distributed to various specialists. The remaining material will be studied in greater detail in the future. This interim report gives an itinerary of the cruises and addresses progress, problems, comments and future plans for activities conducted under the BIOSHELF Project.

INTRODUCTION

The Andaman Sea is part of the Bay of Bengal, the eastern Indian Ocean, and covers about 800000 km². The Thai Economic Exclusive Zone (EEZ) comprises roughly 140000 km², of which about three quarters lies within the 1000 m depth contour, and the rest has maximum depths of 2400 m. The slope is somewhat unusual, as it falls towards deeper water from the shelf break at about 200 m depth but has a further sharp step around 700 m depth, a phenomenon which is most strongly pronounced in the northern region.

Taxonomic studies on the marine fauna along the west coast of Thailand are scattered and inadequate. The fauna of the sandy and muddy bottoms was first investigated by the Fifth Thai-

Danish Expedition in 1966, using the research vessel ‘M/S Dhanarajata’ (Seidenfaden *et al.*, 1968). The expedition was successful in its scientific research programme, the training of groups of young Thai marine biologists, and in the creation of the nucleus for a comprehensive marine fauna reference collection for the later erected Phuket Marine Biological Center (PMBC). However, only depths down to about 80 m were surveyed. Surveys at greater depths were conducted later, aiming at the evaluation of natural resources, *e.g.*, the Thai-Japanese Joint Oceanographic and Fisheries Survey in 1981 at depths of 30–300 m, and topographic studies and deep sea trawling in 1987 and 1989 by the Southeast Asian Fisheries Development Center (SEAFDEC) at depths of 100–400 m.

In the last ten years, a number of other surveys have been carried out, but most of these studies were confined to the biodiversity of marine national parks, coral reef ecosystems, and offshore islands (*e.g.*, Carr, 1991; Janekarn and Kiørboe, 1991; Bussarawit, 1995). A number of new species and new records were reported and described, and type specimens have been deposited at the Reference Collection, Phuket Marine Biological Center (*e.g.*, Nateewathana, 1990, 1995, 1997, 1998; Hylleberg and Nateewathana, 1991a, 1991b; Sirimontraporn and Bussarawit, 1993; Chantrapornsyl, 1996; Nateewathana and Norman, 1999; Randall and Satapoomin, 1999;).

The Biodiversity of the Andaman Sea Shelf (BIOSHOLF) Project during 1996–2000 has been supported by the Scientific Cooperation Programme (SCP) between Denmark and Thailand in connection with the supply of the marine research vessel 'R/V Chakratong Tongyai' from DANIDA to PMBC. The Chief Technical Advisor (CTA) of the SCP programme is Dr. Jens Peter Thomson. The BIOSHOLF Project was carried out in cooperation with the Zoological Museum (ZMUC), University of Copenhagen, Denmark, which has collaborated with PMBC since 1966, and which has provided many of the senior scientific advisers (SSA) and junior scientific advisers (JSA). The leader of the BIOSHOLF Thai Scientists is Mr. Somchai Bussarawit, head of the Marine Biodiversity Research Sub-division, and the leader of the BIOSHOLF Danish Scientists is Dr. Claus Nielsen.

The objective of the project is to expand our general knowledge of the diversity of benthos at depths down to 1000 m within the Thai EEZ and to provide additional specimens to be deposited in the PMBC Reference Collection. Apart from knowledge gained about the species present in the entire area, this information can be applied in the future sustainable use of yet undiscovered commercial species. In all cases, the results will be needed in studies of food chains and food availability in deep water, which also constitute major issues in fisheries biology. This report give a detailed itinerary of the cruises and addresses progress, problems, comments and future plans on activities conducted under the BIOSHOLF Project.

MATERIALS AND METHODS

The study area

The west coast area of Thailand extends over approximately 740 km (6°30'–9°30'N; 97°30'–100°00'E) (Janekarn and Kiørboe, 1991) with many islands of which Phuket is the largest. The BIOSHOLF Project attempted to cover this entire area, from the Burmese border in the north to the Malaysian border in the south, inside the 1000 m depth contour.

Twelve transect lines were established across the shelf running perpendicular to the coast and parallel to latitudes (A–L, Fig. 1). Along each transect 12 stations were fixed at lines of approximate depths of 40, 60, 80, 100, 200, 300, 400, 500, 600, 700, 800, and 900 m.

Sampling methods

Topography and bottom type were judged from the echo-sounder image and sampling gear was chosen accordingly. Quantitative samples from soft bottom were collected with an Olsen box corer or a Smith-McIntyre grab (Fig. 2). Animals from the bottom surface and the uppermost layers of the sediment were collected with an Ockelmann sledge (frame = 2 m in length and 1 m in width), and the hyperbenthic fauna was sampled with a modified Percy-Rothlisberg epibenthic sledge, which most often also takes a certain amount of sediment (Brattegard and Fossaa, 1991). The samples were carefully sieved through 2 mm and 1 mm mesh screens. All material retained by these screens was fixed in 10% buffered formalin. In the cruises of 1999 and 2000, separate sediment samples were specifically treated in order to be used in the study of meiofauna. Foraminifera samples were collected during the cruise of 2000. A beam trawl was used for sampling shrimps, prawns and flatfish (Eleftheriou and Holme, 1984). For the catch of large, scattered invertebrates a 2 m wide Agassiz trawl was used. A otter trawl was used to catch demersal fishes.

On hard bottoms sampling was done with a triangular dredge or a heavy rectangular dredge. Baited traps consisting of a PVC pipe, 30 cm in length and 10 cm in diameter, were used to catch small demersal crustaceans, particularly isopods. Three traps were set on a rope which was lowered

to the bottom by a weight. The traps were placed on the bottom and at 2 and 10 m above the bottom.

RESULTS AND DISCUSSION

Topography and bottom type

In the northern part of the area, from Ranong to Takua-pa in Phang-nga, the shelf is relatively narrow, dominated by sand and shell fragments down to a depth of 80–100 m. Below this depth, down to about 400 m the substrate is mostly gravel and rock. At depths of 500–900 m there is a rather steep slope, with a sand and mud substrate.

In the southern region, from Takua-pa in Phang-nga to Satun, the shelf is wide and dominated by sand, shell fragments, and mud down to about 200 m. Between 200–400 m there is a steep slope dominated by gravel and rock. The bottom becomes rather flat at about 500 m, and at about 700 m turns into a steep slope, dominated by sand and mud, which continues to at least 1000 m depth. Between 500 and 900 m depths, the sediment is characterized by a very high content of pelagic foraminiferan tests.

Samples of sediment, gravel, and rock were collected and sent to the Marine Mineral Resources

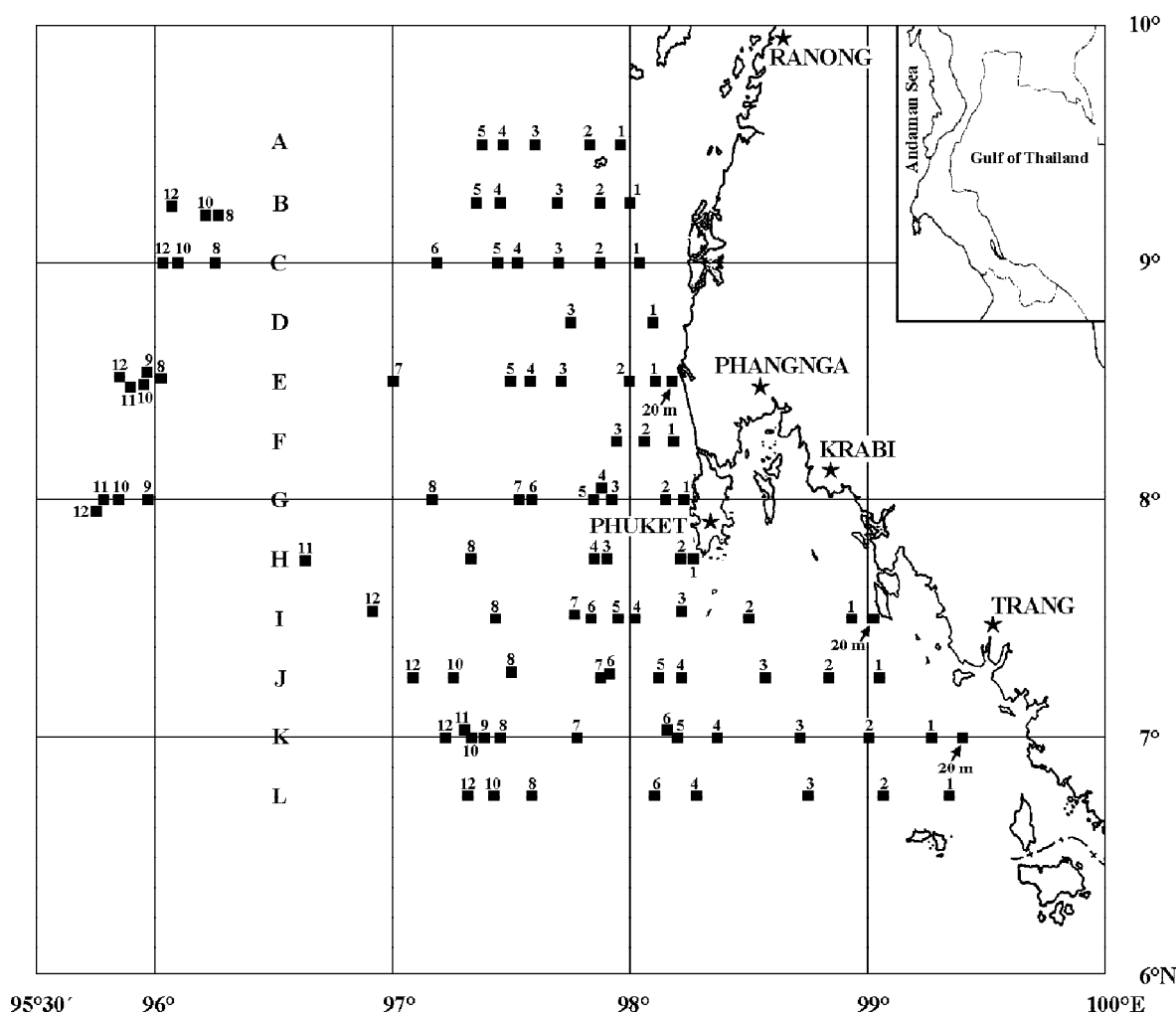


Figure 1 Location of BIOSHELF stations in the Andaman Sea during 1996–2000. A–L = Transect lines. Numbers indicate sampling points along transect lines.



Figure 2 Sampling gear: a. Olsen box corer (BC); b. Smith-McIntyre grab (G); c. Ockelmann sledge (OS); d. Pierce-Rothlisberg hyperbenthic sledge (HS); e. triangular dredge (TD); f. rectangular dredge (RD); g. beam trawl (BT); h. Agassiz trawl (AT); i. otter trawl (T); j. baited trap (Trap).

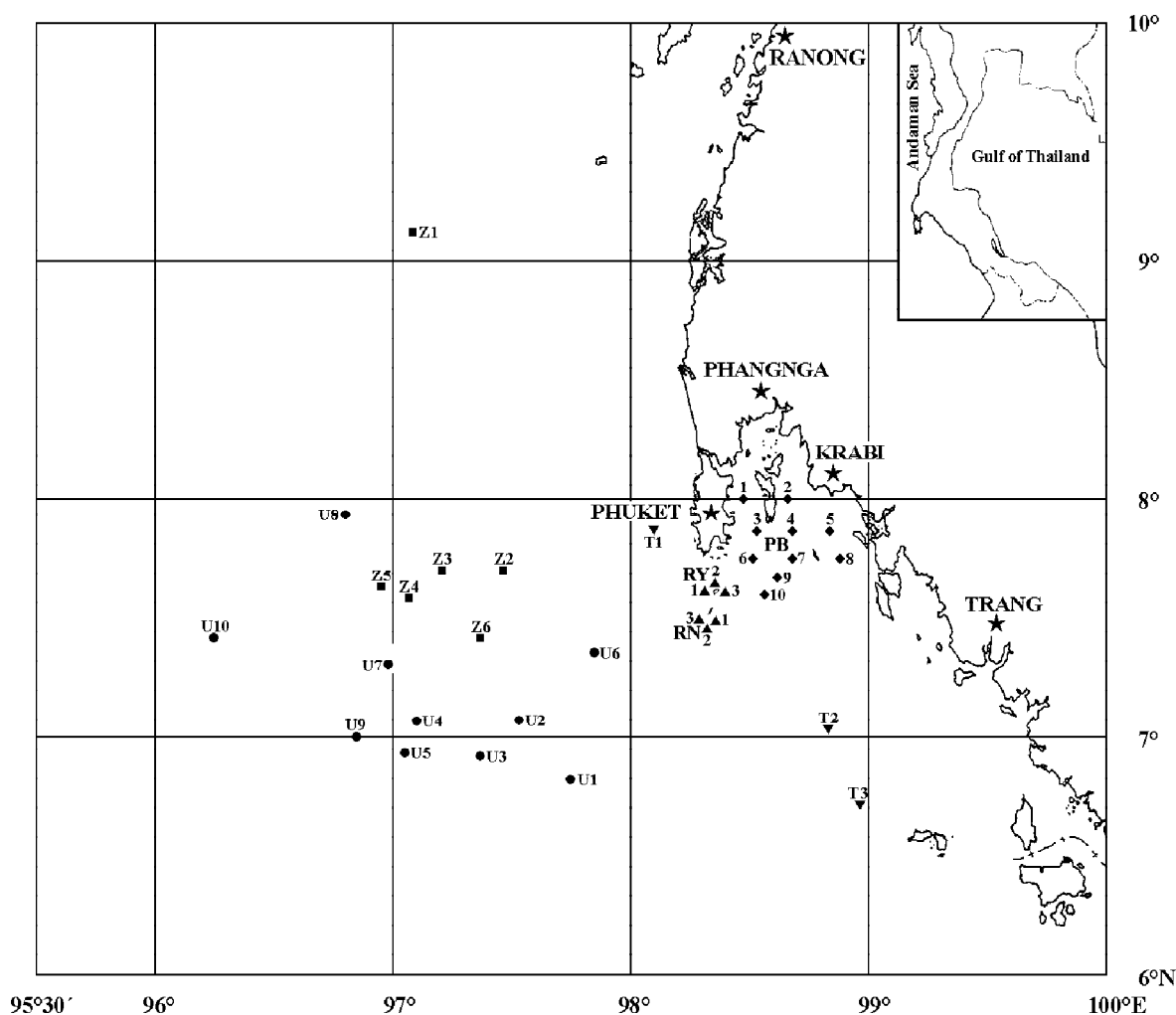


Figure 3 Location of additional stations in the Andaman Sea during 1996–2000. Designations of sampling stations are described in the text.

Section, Department of Mineral Resources, for chemical investigation. Such chemical information will be useful for future surveys of mineral resources in the Andaman Sea.

Sampling stations

Ninety-eight stations were sampled from the twelve transects (Fig. 1). Due to unsuitable bottom type some of the planned stations could not be sampled, but extra stations were added at 20 m depth along transects E, I, and K.

Additionally ten stations (U1–U10) in 1997 and six stations (Z1–Z6) in 1999 were chosen randomly at depths of 300 to 1,000 m in the Thai EEZ (Fig. 3). Three near-shore stations, (T1–T3)

were sampled in 1998. Ten stations from Phang-nga Bay (PB1–PB10), three stations near Racha Yai Island (RY1–RY3) and three stations near Racha Noi Island (RN1–RN3) were also chosen for study as areas of particular interest. At present, the mouth of the Phang-nga Bay is under consideration for development into an industrial area as part of the Upper South Development Project. Finally, samples were also collected from Cape Panwa, PMBC, along the beach of Phuket Island, and the small islands around Phuket by visiting scientists (Fig. 4).

Cruise operation

Six main BIOSHELF cruises and a number of

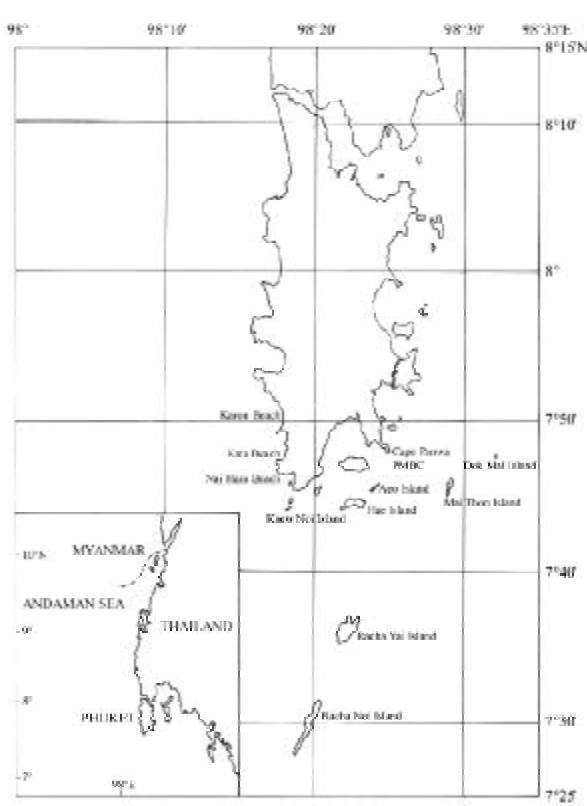


Figure 4 Location of stations around the Southern part of Phuket Island during 1996–2000.

additional cruises were conducted in the Thai EEZ of the Andaman Sea during 1996–2000. Leading and participating marine biologists in these cruises are listed below. The detailed itinerary, including sampling gear, and sediment type recorded at each sampling station is given in Appendix 1.

The first BIOSHELF cruise was conducted by Mr. Somchai Bussarawit and Ms. Charatsee Aungtonya in April and May 1996. Three stations were sampled near Racha Yai Island (RY1–RY3), and three stations were sampled near Racha Noi Island (RN1–RN3).

The second BIOSHELF cruise was conducted by Mr. Somchai Bussarawit in April 1997. A few BIOSHELF stations and additional samples (U1–U10) were chosen randomly at depths of 300 to 1,000 m. Eight stations were sampled in Phang-nga Bay (PB1–PB8).

Supplementary crustacean material was collected by using an Ockelmann sledge (frame = 0.6m in length and 0.5m in width) in November

1997 (stations NBA: Hae Island–Racha Yai Island, NBB: Racha Yai Island–Kaew Noi Island, NBC: Mai Thon Island–Racha Yai Island, and NBD: Hae Island–Mai-Thon Island). This trip was conducted using a long-tail boat and led by Dr. Niel Bruce (SSA) and Ms. Grete Dinesen (JSA) from ZMUC; specimens collected were studied during the International Workshop on Crustaceans in 1998.

The third BIOSHELF cruise was conducted by Mr. Somchai Bussarawit and Ms. Charatsee Aungtonya in February 1998. A few samples were collected at Racha Yai Island, and in Phang-nga Bay with additional samples from near-shore stations (T1–T2).

A test cruise for sampling gear was organized by Mr. Somchai Bussarawit in December 1998. A few BIOSHELF samples were collected with additional samples at two stations in Phang-nga Bay (PB9–PB10) and a near-shore station (T3).

A supplementary cruise was organized by Dr. Matz Berggren (SSA) during the International Workshop on Crustaceans in December 1998, and was conducted aboard the Coastal Research Vessel ‘R/V Boonlert Phasuk’. SCUBA gear was used and samples were taken at the Racha Islands and from the waters around Phuket Island.

The fourth BIOSHELF cruise was conducted by Mr. Somchai Bussarawit, Ms. Charatsee Aungtonya, and Ms. Vararin Vongpanich in January and February 1999. Danish scientists from ZMUC, Dr. Ole Tendal (SSA) and Dr. Danny Eibye-Jacobsen (SSA), participated in the cruise in order to advise the Thai marine biologists and the crew concerning methods of sampling and types of sampling gear. Six additional stations (Z1–Z6) were sampled randomly at depths of 300 to 700 m in the Thai EEZ.

The fifth BIOSHELF cruise was conducted by Ms. Charatsee Aungtonya, Ms. Vararin Vongpanich, and Mr. Santisuk Thaipal in November 1999. Danish scientists from ZMUC, Dr. Ole Tendal (SSA) and Ms. Marie Eiland (JSA), participated in the cruise in order to train groups of young Thai marine biologists and crew members in the use of new sampling gear and to further familiarize them with sample treatment. Supplementary crustacean material was collected with baited traps when the vessel was anchored.

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The sixth BIOSHELF cruise was conducted by Ms. Charatsee Aungtonya, Ms. Vararin Vongpanich, and Mr. Santisuk Thaipal in February 2000. Dr. Ole Tendal (SSA), Dr. Danny Eiby-Jacobsen (SSA) and Mr. Tom Schiøtte (JSA), all from ZMUC, and Dr. Tomas Cedhagen (SSA), from the Department of Marine Ecology, Aarhus University, participated in the cruise to assist in training groups of young Thai marine biologists in methods of collection and in the working-up of material of particular faunal groups. Supplementary crustacean material was collected with baited traps when the vessel was anchored.

BIOSHELF fauna

Animals collected were sorted on board into broad taxonomic groups (Fig. 5 and Fig. 6). A number of photographs were taken of fresh specimens before they were fixed in 10% buffered formalin. All material was brought back to the PMBC Reference Collection for detailed studies,

including sorting, identification and data analysis.

Size and character of the samples was very variable. A general pattern emerged with a narrow zone, rich in large bathyal invertebrates between 500 and 700 m all along the slope. The catches contained sponges of both the classes Hexactinellida and Demospongiae, pennatulaceans belonging to the genus *Umbellula*, solitary corals of the genus *Caryophyllia* and related genera, stalked crinoids of the genus *Saracrinus*, gigantic isopods of the genus *Bathynomus*, asteroids, ophiuroids and holothuroids.

Sorting of material was carried out by the staff of the Marine Biodiversity Research Sub-division. Mr. Somchai Bussarawit worked up the echinoderms and shrimps, Ms. Charatsee Aungtonya the polychaetes, Ms. Vararin Vongpanich the molluscs, and Mr. Santisuk the fishes. There are about 50 families of polychaetes in the waters off the west coast of Thailand. Most of the



Figure 5 Sorting material in the field.

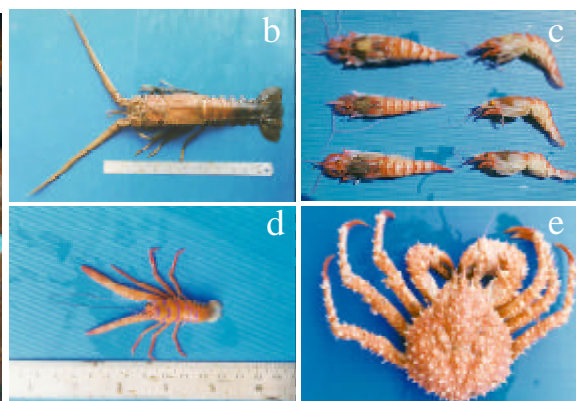


Figure 6 Some samples collected during the cruises: a. samples from the otter trawl; b. Palinuridae; c. Glyphocrangonidae; d. Galatheididae; e. Majidae.

polychaete material from 1996–1997 has been studied at the PMBC-DANIDA International Workshop on Polychaetes. The workshop was held at the PMBC during June–August 1997 and was led by Dr. Danny Eibye-Jacobsen (SSA) and Mr. Torben Kristensen (JSA), both ZMUC. Twelve participants from 6 countries (Denmark, USA, Sweden, Norway, Australia and Thailand) took part.

Part of the crustacean material from 1996–1998 has been studied during the International Workshop on Crustaceans. The workshop was held at the PMBC in November–December 1998, and was lead by Dr. Matz Berggren (SSA, Kristineberg Marine Research Station, Sweden), Dr. Niel Bruce (SSA, Department of Primary Industries, Australia), Ms. Grete Dinesen (JSA, Department of Marine Ecology, University of Aarhus, Denmark), and Mr. Teunis Jensen (JSA, ZMUC) in cooperation with the Marine Biodiversity Research Sub-division, with 22 participants from Thailand, Denmark, Singapore, Australia, Sweden, U.S.A., and Ireland. Work on this material is continuing at the home institutions of these and a number of other specialists not present at the workshop.

A planned international workshop on molluscs was cancelled, However, Dr. R.N. Kilburn, Natal Museum, South Africa, was invited to work up the collected material with Ms. Vararin Vongpanich in July 2000. The current knowledge of the group off the Thai Andaman coast can be summarized as follows. Mollusca comprises Gastropoda with 49 families, Bivalvia with 38 families, Scaphopoda with 2 families, and Polyplacophora with 1 family. Samples which were collected using a triangular dredge on the 1996 cruise have already been studied. Nine new records were found from the area (Aungtonya and Hylleberg, 1998). From recent work on fishes, 5 families in 4 order of Chondrichthyes and 50 families in 16 orders of Osteichthyes have been recorded.

Material from other taxonomic groups is currently being handled by various specialists, *e.g.*, meiofauna samples with Prof. Reinhardt Møbjerg Kristensen, ZMUC, and Foraminifera samples with Dr. Tomas Cedhagen from the University of Aarhus, Denmark.

Other parts of the recently collected BIOSHELF material representing selected groups will be distributed to various specialists. The remaining material will be studied in greater detail in the future. The results will be published in the Phuket Marine Biological Center Research Bulletin, PMBC Special Publications, and in relevant international journals. Information will also be presented at international and national conferences and workshops.

Problems

Scheduled to finish this year, the BIOSHELF Project has achieved its goal of sampling benthic fauna on the entire shelf of the Thai Andaman Sea. However, in some areas work has been difficult because of the high topography of the bottom. Although rather poor, both in species and specimens there is a special fauna in these areas, and it must be sampled. It may turn out to have a special composition because the living conditions are obviously harsh, particularly with respect to hydrological forces and food supply. It is inevitable that some gear will be damaged, destroyed or totally lost during work in this kind of environment.

Comments and future plans

(i) A box corer was provided for the first cruise in 1996, and a Smith-McIntyre grab was borrowed from another institute and used on cruises in 1997. Such gear was not used in 1998. A new Smith-McIntyre grab was made and used in cruises 1999–2000 but there seemed to be a technical problem in the structure of the gear, as there was no success in sampling the sediment. The grab has been modified but the problem has not been solved. The box corer was the alternative gear in the cruise during 2000 for some stations. The beam trawl was used only in the cruise of December 1998. The Percy-Rothlisberg epibenthic sledge and the Agassiz trawl were new and used during the cruises of 1999–2000. The poor quality of the net used in the epibenthic sledge was such that the gear could be used only for a limited number of hauls. Both the frame and the net of the Agassiz trawl were often damaged due to the deployment of the gear on rugged bottoms. Re-sampling in some stations with the gears mentioned is highly desirable in order to complete the future goals of

the project. The grab must be modified or replaced before new sampling can take place. A reserve net for the epibenthic sledge and a least three Agassiz trawls should be available on the vessel and these should be made from good quality netting.

(ii) Many animal groups from the BIOSHELF cruise have not been worked up. They can be studied at PMBC, or the Center can consider requests for loans of material to be mailed abroad to interested specialists.

(iii) Young Thai biologists should be trained in taxonomic work with some groups of animals, in connection with exchange of scientists between the PMBC Reference Collection and other museums/institutions and in collaboration with the specialists in question, if possible.

(iv) The sediments of the west coast of Thailand are affected by changes of winds and currents (Chatanathawej and Bussarawit, 1987). Grain size composition and organic content of the sediment at depths up to 70 m was previously studied by Chatanathawej and Bussarawit (1987). Mud and very fine sand dominated the northern region, and the sediment in the southern region was mostly mud, sand, and shell fractions. The overall pattern of median grain size was found to be rather similar between surveys conducted in 1982 and 1983. However, some differences are apparent, indicating temporal changes in sediment

composition on the sea bottom. Future studies on grain size composition should include investigations on temporal changes in sediment composition and its relationship to macrofauna abundance.

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Appendix 1 Detailed itinerary of the cruises during the period of 1996–2000. Abbreviation:- BC: Olsen box corer; G: Smith-McIntyre grab; OS: Ockelmann sledge; HS: Pierce-Rothlisberg hyperbenthic sledge; TD: triangular dredge; RD: rectangular dredge; BT: beam trawl; AT: Agassiz trawl; T: otter trawl; Trap: baited trap; and ND: no data collected

Station	Gear	Date	Start Point		End Point		Depth (m)		Type of sediment	Collector
			Lat.	Long.	Lat.	Long.	Start	End		
A1	BC	18/04/1996	009°30'N	097°57'E	-	-	43	-	sand with shell fragments	S. Bussarawit & C. Aungtonya
	OS	18/04/1996	009°30'N	097°58'E	009°29'N	097°58'E	42	-	sand with shell fragments	S. Bussarawit & C. Aungtonya
	OS	18/02/1998	009°30'N	097°57'E	009°30'N	097°56'E	46	-	sand with shell fragments	S. Bussarawit & C. Aungtonya
	TD	18/04/1996	009°32'N	097°58'E	009°30'N	097°58'E	40	-	ND	S. Bussarawit & C. Aungtonya
	TD	18/02/1998	009°30'N	097°56'E	009°30'N	097°55'E	49	-	ND	S. Bussarawit & C. Aungtonya
	T	18/04/1996	009°30'N	097°57'E	009°33'N	097°56'E	43	-	ND	S. Bussarawit & C. Aungtonya
	BC	18/04/1996	009°30'N	097°51'E	-	-	61	-	sandy mud, fine sand & shell fragments	S. Bussarawit & C. Aungtonya
A2	OS	18/04/1996	009°32'N	097°50'E	009°30'N	097°51'E	66	-	sandy mud	S. Bussarawit & C. Aungtonya
	OS	18/02/1998	009°29'N	097°52'E	009°30'N	097°51'E	61	-	sandy mud	S. Bussarawit & C. Aungtonya
	TD	18/04/1996	009°34'N	097°49'E	009°32'N	097°50'E	70	-	ND	S. Bussarawit & C. Aungtonya
	TD	18/02/1998	009°30'N	097°53'E	009°30'N	097°52'E	59	-	ND	S. Bussarawit & C. Aungtonya
	T	18/04/1996	009°31'N	097°51'E	009°34'N	097°49'E	64	-	ND	S. Bussarawit & C. Aungtonya
	T	18/02/1998	009°27'N	097°52'E	009°26'N	097°50'E	63	-	ND	S. Bussarawit & C. Aungtonya
	BC	19/04/1996	009°30'N	097°38'E	-	-	82	-	sandy mud	S. Bussarawit & C. Aungtonya
A3	OS	19/04/1996	009°30'N	097°38'E	009°31'N	097°38'E	83	-	sandy mud	S. Bussarawit & C. Aungtonya
	TD	19/04/1996	009°31'N	097°38'E	009°33'N	097°38'E	87	-	ND	S. Bussarawit & C. Aungtonya
	T	19/04/1996	009°33'N	097°38'E	009°29'N	097°38'E	83	-	ND	S. Bussarawit & C. Aungtonya
	BC	19/04/1996	009°30'N	097°28'E	-	-	116	-	coarse sand	S. Bussarawit & C. Aungtonya
A4	BC	19/04/1996	009°29'N	097°22'E	-	-	204	-	rock	S. Bussarawit & C. Aungtonya
	TD	19/04/1996	009°28'N	097°22'E	009°28'N	097°23'E	196	-	ND	S. Bussarawit & C. Aungtonya
B1	OS	17/02/1998	009°14'N	098°00'E	009°14'N	098°00'E	45	-	muddy sand	S. Bussarawit & C. Aungtonya
	TD	17/02/1998	009°15'N	098°02'E	009°15'N	098°03'E	43	-	ND	S. Bussarawit & C. Aungtonya
B2	OS	17/02/1998	009°15'N	097°54'E	009°15'N	097°52'E	58	-	sand	S. Bussarawit & C. Aungtonya
	TD	17/02/1998	009°15'N	097°54'E	009°15'N	097°52'E	61	-	ND	S. Bussarawit & C. Aungtonya
B3	TD	18/02/1998	009°15'N	097°42'E	009°15'N	097°42'E	80	-	ND	S. Bussarawit & C. Aungtonya
	RD	02/02/2000	009°15'N	097°28'E	009°15'N	097°28'E	96	92	ND	C. Aungtonya & V. Vongpanich
B4	RD	02/02/2000	009°15'N	097°22'E	009°15'N	097°22'E	200	204	ND	C. Aungtonya & V. Vongpanich
	G	11/02/1999	009°12'N	096°17'E	-	-	500	-	sand	S. Bussarawit & C. Aungtonya
B5	OS	11/02/1999	009°12'N	096°17'E	009°12'N	096°17'E	516	500	sand	S. Bussarawit & C. Aungtonya
	T	11/02/1999	009°10'N	096°18'E	009°09'N	096°16'E	489	504	ND	S. Bussarawit & C. Aungtonya
B8	G	11/02/1999	009°13'N	096°14'E	-	-	689	-	sand	S. Bussarawit & C. Aungtonya
	OS	11/02/1999	009°13'N	096°12'E	009°13'N	096°12'E	687	691	sand	S. Bussarawit & C. Aungtonya
B10	OS	11/02/1999	009°13'N	096°12'E	009°13'N	096°12'E	687	691	sand	S. Bussarawit & C. Aungtonya

Appendix 1 (continued.)

Station	Gear	Date	Start Point		End Point		Depth (m)		Type of sediment	Collector
			Lat.	Long.	Lat.	Long.	Start	End		
B12	T	11/02/1999	009°11' N	096°12' E	009°10' N	096°14' E	689	549	ND	S. Bussarawit & C. Aungtonya
	G	10/02/1999	009°14' N	096°06' E	-	-	940	-	mud	S. Bussarawit & C. Aungtonya
	OS	11/02/1999	009°13' N	096°06' E	009°13' N	096°06' E	908	933	sand	S. Bussarawit & C. Aungtonya
	BC	20/04/1996	009°00' N	098°03' E	-	-	40	-	muddy sand with shell fragments	S. Bussarawit & C. Aungtonya
C1	OS	20/04/1996	009°01' N	098°03' E	009°01' N	098°03' E	39	-	muddy sand	S. Bussarawit & C. Aungtonya
	OS	17/02/1998	009°00' N	098°02' E	009°00' N	098°03' E	41	-	muddy sand	S. Bussarawit & C. Aungtonya
	TD	20/04/1996	009°02' N	098°03' E	009°02' N	098°03' E	39	-	ND	S. Bussarawit & C. Aungtonya
	TD	17/02/1998	009°00' N	098°02' E	009°00' N	098°01' E	43	-	ND	S. Bussarawit & C. Aungtonya
	T	20/04/1996	009°02' N	098°03' E	008°59' N	098°03' E	40	-	ND	S. Bussarawit & C. Aungtonya
	BC	20/04/1996	009°00' N	097°53' E	-	-	65	-	muddy sand	S. Bussarawit & C. Aungtonya
	OS	20/04/1996	009°00' N	097°53' E	009°01' N	097°53' E	64	-	muddy sand	S. Bussarawit & C. Aungtonya
	OS	17/02/1998	009°00' N	097°56' E	009°00' N	097°57' E	60	-	muddy sand	S. Bussarawit & C. Aungtonya
	TD	20/04/1996	009°02' N	097°53' E	009°02' N	097°53' E	64	-	ND	S. Bussarawit & C. Aungtonya
	TD	17/02/1998	009°00' N	097°55' E	009°00' N	097°56' E	61	-	ND	S. Bussarawit & C. Aungtonya
C2	RD	01/02/2000	009°00' N	097°55' E	009°00' N	097°55' E	60	60	ND	C. Aungtonya & V. Vongpanich
	AT	01/02/2000	009°00' N	097°54' E	009°02' N	097°53' E	62	64	ND	C. Aungtonya & V. Vongpanich
	T	20/04/1996	009°01' N	097°53' E	008°59' N	097°53' E	64	-	ND	S. Bussarawit & C. Aungtonya
	T	17/02/1998	009°00' N	097°48' E	009°01' N	097°50' E	70	-	ND	S. Bussarawit & C. Aungtonya
	BC	20/04/1996	009°00' N	097°43' E	-	-	79	-	sandy mud	S. Bussarawit & C. Aungtonya
	OS	20/04/1996	009°00' N	097°43' E	008°59' N	097°43' E	80	-	fine sand with shell fragments	S. Bussarawit & C. Aungtonya
	TD	18/02/1998	009°00' N	097°43' E	009°00' N	097°42' E	79	-	ND	S. Bussarawit & C. Aungtonya
	T	20/04/1996	009°00' N	097°43' E	009°03' N	097°43' E	81	-	ND	S. Bussarawit & C. Aungtonya
	BC	21/04/1996	009°00' N	097°30' E	-	-	129	-	sandy mud	S. Bussarawit & C. Aungtonya
	AT	02/02/2000	009°00' N	097°31' E	009°01' N	097°29' E	110	164	ND	C. Aungtonya & V. Vongpanich
C3	T	21/04/1996	009°00' N	097°30' E	008°58' N	097°30' E	126	-	ND	S. Bussarawit & C. Aungtonya
	BC	21/04/1996	009°00' N	097°26' E	-	-	200	-	sand with shell fragments	S. Bussarawit & C. Aungtonya
	TD	21/04/1996	009°01' N	097°27' E	009°00' N	097°28' E	191	-	ND	S. Bussarawit & C. Aungtonya
	AT	02/02/2000	009°00' N	097°25' E	009°00' N	097°23' E	215	230	ND	C. Aungtonya & V. Vongpanich
C4	RD	02/02/2000	009°00' N	097°11' E	009°00' N	097°11' E	311	311	ND	C. Aungtonya & V. Vongpanich
	G	03/02/2000	009°00' N	096°17' E	-	-	480	-	sand	C. Aungtonya & V. Vongpanich
C5	HS	03/02/2000	009°00' N	096°14' E	009°00' N	096°14' E	475	473	ND	C. Aungtonya & V. Vongpanich
	AT	03/02/2000	009°00' N	096°15' E	009°00' N	096°13' E	478	480	ND	C. Aungtonya & V. Vongpanich
C6	G	04/02/2000	009°00' N	096°09' E	-	-	684	-	mud	C. Aungtonya & V. Vongpanich
	RD	04/02/2000	009°01' N	096°08' E	009°01' N	096°08' E	709	722	ND	C. Aungtonya & V. Vongpanich
C8	AT	04/02/2000	008°59' N	096°08' E	008°56' N	096°08' E	691	684	ND	C. Aungtonya & V. Vongpanich
	AT	04/02/2000	008°59' N	096°08' E	008°56' N	096°08' E	691	684	ND	C. Aungtonya & V. Vongpanich

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Appendix 1 (continued.)

Station	Gear	Date	Start Point		End Point		Depth (m)		Type of sediment	Collector
			Lat.	Long.	Lat.	Long.	Start	End		
C12	G	04/02/2000	009°00' N	096°04' E	-	-	936	-	sand	C. Aungtonya & V. Vongpanich
	OS	05/02/2000	008°56' N	096°02' E	008°56' N	096°02' E	933	928	sand	C. Aungtonya & V. Vongpanich
	AT	04/02/2000	008°59' N	096°03' E	008°56' N	096°01' E	930	962	ND	C. Aungtonya & V. Vongpanich
D1	TD	19/02/1998	008°45' N	098°05' E	008°45' N	098°05' E	38	-	ND	S. Bussarawit & C. Aungtonya
D3	OS	19/02/1998	008°45' N	097°43' E	008°45' N	097°42' E	80	-	sand	S. Bussarawit & C. Aungtonya
E 20 m	TD	19/02/1998	008°45' N	097°42' E	008°45' N	097°43' E	80	-	ND	S. Bussarawit & C. Aungtonya
	BC	22/04/1996	008°30' N	098°12' E	-	-	21	-	muddy sand	S. Bussarawit & C. Aungtonya
	OS	22/04/1996	008°30' N	098°12' E	008°30' N	098°12' E	20	-	muddy sand	S. Bussarawit & C. Aungtonya
E1	TD	22/04/1996	008°29' N	098°12' E	008°29' N	098°12' E	20	-	ND	S. Bussarawit & C. Aungtonya
	BC	22/04/1996	008°30' N	098°06' E	-	-	42	-	muddy sand	S. Bussarawit & C. Aungtonya
	OS	22/04/1996	008°30' N	098°06' E	008°30' N	098°07' E	41	-	muddy sand	S. Bussarawit & C. Aungtonya
E2	TD	22/04/1996	008°30' N	098°06' E	008°29' N	098°07' E	38	-	ND	S. Bussarawit & C. Aungtonya
	BC	22/04/1996	008°30' N	098°00' E	-	-	63	-	muddy sand	S. Bussarawit & C. Aungtonya
	OS	22/04/1996	008°31' N	098°00' E	008°30' N	098°00' E	60	-	muddy sand	S. Bussarawit & C. Aungtonya
E3	TD	22/04/1996	008°30' N	098°00' E	008°30' N	098°00' E	60	-	ND	S. Bussarawit & C. Aungtonya
	BC	22/04/1996	008°31' N	097°46' E	-	-	81	-	sandy mud	S. Bussarawit & C. Aungtonya
	OS	22/04/1996	008°30' N	097°46' E	008°31' N	097°46' E	81	-	sandy mud with shell fragments	S. Bussarawit & C. Aungtonya
E4	TD	22/04/1996	008°32' N	097°46' E	008°31' N	097°46' E	79	-	ND	S. Bussarawit & C. Aungtonya
	BC	21/04/1996	008°30' N	097°33' E	-	-	74	-	sand and gravel	S. Bussarawit & C. Aungtonya
	TD	21/04/1996	008°30' N	097°33' E	008°30' N	097°34' E	74	-	ND	S. Bussarawit & C. Aungtonya
E5	BC	21/04/1996	008°30' N	097°30' E	-	-	227	-	rock	S. Bussarawit & C. Aungtonya
	G	08/02/2000	008°30' N	097°30' E	-	-	228	-	rock	C. Aungtonya & V. Vongpanich
	TD	08/02/2000	008°30' N	097°30' E	008°30' N	097°31' E	225	228	ND	C. Aungtonya & V. Vongpanich
E7	G	08/02/2000	008°30' N	097°00' E	-	-	450	-	sand and gravel	C. Aungtonya & V. Vongpanich
	TD	08/02/2000	008°29' N	097°00' E	008°29' N	097°00' E	452	453	ND	C. Aungtonya & V. Vongpanich
	AT	08/02/2000	008°30' N	097°01' E	008°29' N	097°03' E	449	446	ND	C. Aungtonya & V. Vongpanich
E8	T	08/02/2000	008°30' N	097°08' E	008°30' N	097°08' E	436	443	ND	C. Aungtonya & V. Vongpanich
	T	09/02/2000	008°30' N	097°07' E	008°29' N	097°04' E	435	444	ND	C. Aungtonya & V. Vongpanich
	G	05/02/1999	008°32' N	096°02' E	-	-	488	-	muddy sand	S. Bussarawit & C. Aungtonya
E9	G	06/02/2000	008°30' N	096°01' E	-	-	498	-	sand	C. Aungtonya & V. Vongpanich
	OS	06/02/1999	008°28' N	096°06' E	008°28' N	096°05' E	483	482	sand	S. Bussarawit & C. Aungtonya
	RD	06/02/2000	008°25' N	096°01' E	008°25' N	096°01' E	500	500	ND	C. Aungtonya & V. Vongpanich
E10	T	06/02/1999	008°32' N	096°04' E	008°31' N	096°07' E	488	478	ND	S. Bussarawit & C. Aungtonya
	T	05/02/1999	008°30' N	095°58' E	008°28' N	095°58' E	649	550	ND	S. Bussarawit & C. Aungtonya
	G	05/02/1999	008°32' N	095°57' E	-	-	685	-	sand and coral	S. Bussarawit & C. Aungtonya
	OS	05/02/1999	008°29' N	095°56' E	008°29' N	095°56' E	684	720	ND	S. Bussarawit & C. Aungtonya

Appendix 1 (continued.)

Station	Gear	Date	Start Point		End Point		Depth (m)		Type of sediment	Collector
			Lat.	Long.	Lat.	Long.	Start	End		
E11	AT	05/02/2000	008°31' N	095°57' E	008°33' N	095°57' E	707	664	ND	C. Aungtonya & V. Vongpanich
	TD	04/02/1999	008°31' N	095°54' E	008°30' N	095°54' E	842	867	ND	S. Bussarawit & C. Aungtonya
	AT	05/02/2000	008°28' N	095°53' E	008°24' N	095°52' E	864	800	ND	C. Aungtonya & V. Vongpanich
E12	G	04/02/1999	008°29' N	095°52' E	-	-	918	-	ND	S. Bussarawit & C. Aungtonya
F1	OS	16/02/1998	008°15' N	098°10' E	008°15' N	098°10' E	43	-	sand	S. Bussarawit & C. Aungtonya
	TD	16/02/1998	008°15' N	098°12' E	008°15' N	098°12' E	36	-	ND	S. Bussarawit & C. Aungtonya
F2	OS	16/02/1998	008°15' N	098°03' E	008°15' N	098°02' E	66	-	muddy sand	S. Bussarawit & C. Aungtonya
	TD	16/02/1998	008°15' N	098°04' E	008°15' N	098°03' E	59	-	ND	S. Bussarawit & C. Aungtonya
F3	TD	16/02/1998	008°15' N	097°58' E	008°15' N	097°57' E	78	-	ND	S. Bussarawit & C. Aungtonya
	BC	24/04/1996	008°00' N	098°14' E	-	-	42	-	sandy mud	S. Bussarawit & C. Aungtonya
G1	OS	24/04/1996	008°00' N	098°14' E	007°59' N	098°14' E	43	-	sandy mud	S. Bussarawit & C. Aungtonya
	OS	20/02/1998	008°00' N	098°12' E	007°59' N	098°12' E	49	-	sandy mud	S. Bussarawit & C. Aungtonya
G2	TD	24/04/1996	007°59' N	098°14' E	007°59' N	098°14' E	43	-	ND	S. Bussarawit & C. Aungtonya
	TD	20/02/1998	008°00' N	098°13' E	008°00' N	098°12' E	46	-	ND	S. Bussarawit & C. Aungtonya
G3	BC	23/04/1996	008°00' N	098°10' E	-	-	63	-	muddy sand	S. Bussarawit & C. Aungtonya
	OS	23/04/1996	008°00' N	098°10' E	008°00' N	098°10' E	63	-	muddy sand	S. Bussarawit & C. Aungtonya
G4	OS	20/02/1998	007°59' N	098°08' E	007°59' N	098°07' E	72	-	muddy sand	S. Bussarawit & C. Aungtonya
	TD	23/04/1996	008°01' N	098°10' E	008°01' N	098°10' E	61	-	ND	S. Bussarawit & C. Aungtonya
G5	TD	20/02/1998	007°59' N	098°09' E	007°59' N	098°08' E	68	-	ND	S. Bussarawit & C. Aungtonya
	BC	23/04/1996	008°00' N	097°54' E	-	-	76	-	muddy sand	S. Bussarawit & C. Aungtonya
G6	OS	23/04/1996	008°00' N	097°54' E	008°01' N	097°54' E	77	-	muddy sand	S. Bussarawit & C. Aungtonya
	TD	20/02/1998	007°58' N	098°02' E	007°57' N	098°03' E	79	-	ND	S. Bussarawit & C. Aungtonya
G7	G	10/02/2000	008°03' N	097°49' E	-	-	140	-	sand	C. Aungtonya & V. Vongpanich
	TD	10/02/2000	008°03' N	097°48' E	008°03' N	097°48' E	151	151	ND	C. Aungtonya & V. Vongpanich
G8	AT	10/02/2000	008°04' N	097°47' E	008°03' N	097°48' E	173	158	ND	C. Aungtonya & V. Vongpanich
	BC	23/04/1996	008°00' N	097°48' E	-	-	233	-	coarse sand and gravel	S. Bussarawit & C. Aungtonya
G9	G	10/02/2000	008°00' N	097°47' E	-	-	247	-	rock	C. Aungtonya & V. Vongpanich
	TD	23/04/1996	008°00' N	097°48' E	008°00' N	097°48' E	220	-	ND	S. Bussarawit & C. Aungtonya
G10	TD	10/02/2000	008°00' N	097°48' E	008°00' N	097°47' E	236	242	ND	C. Aungtonya & V. Vongpanich
	G	20/11/1999	008°00' N	097°34' E	-	-	344	-	mud	C. Aungtonya & V. Vongpanich
G11	TD	20/11/1999	008°00' N	097°35' E	008°00' N	097°35' E	280	292	ND	C. Aungtonya & V. Vongpanich
	RD	20/11/1999	008°00' N	097°35' E	008°00' N	097°35' E	262	262	ND	C. Aungtonya & V. Vongpanich
G12	AT	20/11/1999	008°01' N	097°34' E	008°01' N	097°33' E	276	290	ND	C. Aungtonya & V. Vongpanich
	RD	20/11/1999	008°00' N	097°32' E	007°59' N	097°33' E	408	408	ND	C. Aungtonya & V. Vongpanich

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Appendix 1 (continued.)

Station	Gear	Date	Start Point		End Point		Depth (m)		Type of sediment	Collector
			Lat.	Long.	Lat.	Long.	Start	End		
G8	G	20/11/1999	00800 N	097°14 E	-	-	483	-	muddy sand	C. Aungtonya & V. Vongpanich
	G	09/02/2000	00801 N	097°09 E	-	-	498	-	ND	C. Aungtonya & V. Vongpanich
	HS	20/11/1999	00800 N	097°12 E	00800 N	097°12 E	488	488	muddy sand	C. Aungtonya & V. Vongpanich
	TD	09/02/2000	00800 N	097°08 E	00800 N	097°08 E	500	504	ND	C. Aungtonya & V. Vongpanich
	AT	09/02/2000	00800 N	097°11 E	00800 N	097°13 E	495	488	ND	C. Aungtonya & V. Vongpanich
	T	20/11/1999	00800 N	097°06 E	00800 N	097°04 E	508	518	ND	C. Aungtonya & V. Vongpanich
	G	07/02/2000	00800 N	095°59 E	-	-	548	-	sand	C. Aungtonya & V. Vongpanich
	TD	07/02/2000	00800 N	095°54 E	00800 N	095°54 E	560	560	ND	C. Aungtonya & V. Vongpanich
	G	07/02/2000	00800 N	095°50 E	-	-	680	-	sand	C. Aungtonya & V. Vongpanich
	G	06/02/2000	00800 N	095°47 E	-	-	808.0	-	sand	C. Aungtonya & V. Vongpanich
	G	06/02/2000	00757 N	095°46 E	-	-	872	-	sand	C. Aungtonya & V. Vongpanich
	H1	BC	09/05/1996	00745 N	098°16 E	-	-	32	-	sandy mud
OS		09/05/1996	00745 N	098°16 E	00744 N	098°17 E	31	-	mud	S. Bussarawit & C. Aungtonya
OS		20/02/1998	00746 N	098°16 E	00746 N	098°16 E	40	-	soft mud	S. Bussarawit & C. Aungtonya
TD		09/05/1996	00744 N	098°17 E	00744 N	098°17 E	32	-	ND	S. Bussarawit & C. Aungtonya
BC		09/05/1996	00745 N	098°15 E	-	-	59	-	soft mud	S. Bussarawit & C. Aungtonya
OS		09/05/1996	00745 N	098°15 E	00744 N	098°16 E	56	-	soft mud	S. Bussarawit & C. Aungtonya
TD		09/05/1996	00744 N	098°16 E	00743 N	098°16 E	60	-	ND	S. Bussarawit & C. Aungtonya
TD		20/02/1998	00746 N	098°14 E	00746 N	098°15 E	57	-	ND	S. Bussarawit & C. Aungtonya
BC		09/05/1996	00745 N	097°58 E	-	-	70	-	coarse sand	S. Bussarawit & C. Aungtonya
TD		09/05/1996	00746 N	097°58 E	00745 N	097°59 E	71	-	ND	S. Bussarawit & C. Aungtonya
T		08/04/1997	00746 N	097°58 E	00745 N	097°57 E	80	-	ND	S. Bussarawit & C. Aungtonya
BC		09/05/1996	00745 N	097°56 E	-	-	139	-	coarse sand with shell fragments	S. Bussarawit & C. Aungtonya
H8	G	10/04/1997	00745 N	097°20 E	-	-	493	-	soft mud	S. Bussarawit
	OS	10/04/1997	00745 N	097°20 E	00746 N	097°19 E	493	-	sand	S. Bussarawit
	TD	10/04/1997	00745 N	097°20 E	00746 N	097°19 E	493	-	ND	S. Bussarawit
	G	16/04/1997	00744 N	096°38 E	-	-	820	-	soft mud	S. Bussarawit
	OS	16/04/1997	00744 N	096°38 E	00742 N	096°38 E	822	-	soft mud	S. Bussarawit
	BC	03/05/1996	00730 N	099°01 E	-	-	21	-	mud	S. Bussarawit & C. Aungtonya
	OS	03/05/1996	00730 N	099°01 E	00730 N	099°01 E	21	-	mud	S. Bussarawit & C. Aungtonya
	TD	03/05/1996	00730 N	099°01 E	00730 N	099°01 E	21	-	ND	S. Bussarawit & C. Aungtonya
	BC	03/05/1996	00730 N	098°57 E	-	-	38	-	mud	S. Bussarawit & C. Aungtonya
	OS	03/05/1996	00730 N	098°57 E	00730 N	098°57 E	38	-	mud	S. Bussarawit & C. Aungtonya
	OS	22/02/1998	00730 N	098°55 E	00730 N	098°56 E	42	-	mud	S. Bussarawit & C. Aungtonya

Appendix 1 (continued.)

Station	Gear	Date	Start Point		End Point		Depth (m)		Type of sediment	Collector	
			Lat.	Long.	Lat.	Long.	Start	End			
I2	TD	03/05/1996	007°29' N	098°56' E	007°29' N	098°56' E	40	-	ND	S. Bussarawit & C. Aungtonya	
	TD	22/02/1998	007°30' N	098°54' E	007°30' N	098°55' E	43	-	ND	S. Bussarawit & C. Aungtonya	
	BC	01/05/1996	007°30' N	098°30' E	-	-	59	-	sandy mud	S. Bussarawit & C. Aungtonya	
	BC	03/05/1996	007°30' N	098°29' E	-	-	59	-	sandy mud	S. Bussarawit & C. Aungtonya	
	OS	03/05/1996	007°30' N	098°29' E	007°30' N	098°29' E	60	-	sandy mud	S. Bussarawit & C. Aungtonya	
	OS	22/02/1998	007°30' N	098°30' E	007°30' N	098°30' E	59	-	sandy mud	S. Bussarawit & C. Aungtonya	
	OS	05/12/1998	007°29' N	098°30' E	007°29' N	098°30' E	64	-	ND	S. Bussarawit	
	HS	26/02/2000	007°30' N	098°29' E	007°30' N	098°29' E	61	61	ND	C. Aungtonya & V. Vongpanich	
	TD	01/05/1996	007°30' N	098°31' E	007°30' N	098°30' E	59	-	ND	S. Bussarawit & C. Aungtonya	
	TD	22/02/1998	007°31' N	098°30' E	007°30' N	098°30' E	58	-	ND	S. Bussarawit & C. Aungtonya	
I3-I2	TD	05/12/1998	007°28' N	098°31' E	007°29' N	098°30' E	65	-	ND	S. Bussarawit	
	AT	26/02/2000	007°30' N	098°29' E	007°31' N	098°27' E	60	62	ND	C. Aungtonya & V. Vongpanich	
	T	05/12/1998	007°30' N	098°30' E	007°30' N	098°28' E	61	-	ND	S. Bussarawit	
	T	22/02/1998	007°30' N	098°31' E	007°29' N	098°35' E	59	-	ND	S. Bussarawit & C. Aungtonya	
	OS	22/02/1998	007°33' N	098°19' E	007°33' N	098°19' E	55	-	ND	S. Bussarawit & C. Aungtonya	
	BC	02/05/1996	007°30' N	098°10' E	-	-	79	-	sand with shell fragments	C. Aungtonya & V. Vongpanich	
	G	15/11/1999	007°30' N	098°15' E	-	-	66	-	sand	S. Bussarawit	
	OS	01/12/1998	007°34' N	098°13' E	007°34' N	098°13' E	77	-	ND	S. Bussarawit	
	OS	02/12/1998	007°35' N	098°14' E	007°34' N	098°13' E	73	-	ND	S. Bussarawit	
	HS	08/11/1999	007°29' N	098°14' E	007°29' N	098°14' E	67	66	ND	C. Aungtonya & V. Vongpanich	
I3	TD	02/05/1996	007°30' N	098°10' E	007°30' N	098°11' E	78	-	ND	S. Bussarawit & C. Aungtonya	
	TD	01/12/1998	007°35' N	098°12' E	007°34' N	098°13' E	77	-	ND	S. Bussarawit	
	TD	02/12/1998	007°34' N	098°14' E	007°34' N	098°13' E	75	-	ND	S. Bussarawit	
	BT	01/12/1998	007°34' N	098°14' E	007°35' N	098°15' E	69	-	ND	S. Bussarawit	
	BT	02/12/1998	007°32' N	098°13' E	007°30' N	098°12' E	83	-	ND	S. Bussarawit	
	G	16/02/2000	007°31' N	098°01' E	-	-	125	-	sand with shell fragments	C. Aungtonya & V. Vongpanich	
	HS	17/02/2000	007°30' N	098°01' E	007°30' N	098°01' E	118	118	sand with shell fragments	C. Aungtonya & V. Vongpanich	
	TD	08/11/1999	007°30' N	098°02' E	007°30' N	098°01' E	122	137	ND	C. Aungtonya & V. Vongpanich	
	TD	16/02/2000	007°30' N	098°01' E	007°30' N	098°01' E	120	117	ND	C. Aungtonya & V. Vongpanich	
	RD	08/11/1999	007°30' N	098°01' E	007°30' N	098°01' E	120	107	ND	C. Aungtonya & V. Vongpanich	
I4	AT	16/02/2000	007°30' N	098°01' E	007°31' N	098°00' E	122	156	ND	C. Aungtonya & V. Vongpanich	
	TD	29/01/1999	007°32' N	097°56' E	007°32' N	097°56' E	190	209	ND	S. Bussarawit & C. Aungtonya	
	TD	16/02/2000	007°30' N	097°58' E	007°30' N	097°58' E	194	193	ND	C. Aungtonya & V. Vongpanich	
	RD	09/11/1999	007°30' N	097°57' E	007°30' N	097°56' E	220	222	ND	C. Aungtonya & V. Vongpanich	
	I5	TD	03/05/1996	007°29' N	098°56' E	007°29' N	098°56' E	40	-	ND	S. Bussarawit & C. Aungtonya
		TD	22/02/1998	007°30' N	098°54' E	007°30' N	098°55' E	43	-	ND	S. Bussarawit & C. Aungtonya
BC		01/05/1996	007°30' N	098°30' E	-	-	59	-	sandy mud	S. Bussarawit & C. Aungtonya	
BC		03/05/1996	007°30' N	098°29' E	-	-	59	-	sandy mud	S. Bussarawit & C. Aungtonya	
OS		03/05/1996	007°30' N	098°29' E	007°30' N	098°29' E	60	-	sandy mud	S. Bussarawit & C. Aungtonya	
OS		22/02/1998	007°30' N	098°30' E	007°30' N	098°30' E	59	-	sandy mud	S. Bussarawit & C. Aungtonya	
OS		05/12/1998	007°29' N	098°30' E	007°29' N	098°30' E	64	-	ND	S. Bussarawit	
HS		26/02/2000	007°30' N	098°29' E	007°30' N	098°29' E	61	61	ND	C. Aungtonya & V. Vongpanich	
TD		01/05/1996	007°30' N	098°31' E	007°30' N	098°30' E	59	-	ND	S. Bussarawit & C. Aungtonya	
TD		22/02/1998	007°31' N	098°30' E	007°30' N	098°30' E	58	-	ND	S. Bussarawit & C. Aungtonya	

Appendix 1 (continued.)

Station	Gear	Date	Start Point		End Point		Depth (m)		Type of sediment	Collector
			Lat.	Long.	Lat.	Long.	Start	End		
J6	G	17/02/2000	007°16' N	097°55' E	-	-	330	-	rock	C. Aungtonya & V. Vongpanich
	TD	17/02/2000	007°15' N	097°55' E	007°15' N	097°56' E	304	315	ND	C. Aungtonya & V. Vongpanich
	TD	02/12/1998	007°16' N	097°53' E	007°15' N	097°53' E	342	-	ND	S. Bussarawit
J7	AT	17/02/2000	007°15' N	097°53' E	007°16' N	097°52' E	356	360	ND	C. Aungtonya & V. Vongpanich
	BC	18/02/2000	007°16' N	097°31' E	-	-	489	-	sand	C. Aungtonya & V. Vongpanich
	G	27/01/1999	007°20' N	097°29' E	-	-	501	-	mud	S. Bussarawit & C. Aungtonya
J8	G	18/02/2000	007°15' N	097°31' E	-	-	488	-	sand	C. Aungtonya & V. Vongpanich
	OS	18/02/2000	007°15' N	097°30' E	007°15' N	097°30' E	495	490	mud	C. Aungtonya & V. Vongpanich
	TD	18/02/2000	007°15' N	097°30' E	007°15' N	097°31' E	493	490	ND	C. Aungtonya & V. Vongpanich
J10	AT	18/02/2000	007°15' N	097°30' E	007°15' N	097°32' E	490	479	ND	C. Aungtonya & V. Vongpanich
	T	27/01/1999	007°21' N	097°26' E	007°20' N	097°25' E	520	531	ND	S. Bussarawit & C. Aungtonya
	T	18/02/2000	007°15' N	097°33' E	007°15' N	097°30' E	473	494	ND	C. Aungtonya & V. Vongpanich
J11	BC	19/02/2000	007°15' N	097°16' E	-	-	668	-	mud	C. Aungtonya & V. Vongpanich
	G	28/01/1999	007°17' N	097°15' E	-	-	656	-	mud	S. Bussarawit & C. Aungtonya
	OS	19/02/2000	007°15' N	097°16' E	007°15' N	097°16' E	668	669	muddy sand	C. Aungtonya & V. Vongpanich
J12	TD	19/02/2000	007°15' N	097°16' E	007°15' N	097°16' E	660	663	ND	C. Aungtonya & V. Vongpanich
	AT	19/02/2000	007°15' N	097°15' E	007°14' N	097°15' E	689	687	ND	C. Aungtonya & V. Vongpanich
	T	28/01/1999	007°20' N	097°14' E	007°22' N	097°13' E	655	651	ND	S. Bussarawit & C. Aungtonya
K 20 m	T	19/02/2000	007°15' N	097°16' E	007°15' N	097°14' E	662	696	ND	C. Aungtonya & V. Vongpanich
	BC	20/02/2000	007°15' N	097°05' E	-	-	924	-	muddy sand	C. Aungtonya & V. Vongpanich
	OS	20/02/2000	007°15' N	097°07' E	007°15' N	097°07' E	896	896	sand	C. Aungtonya & V. Vongpanich
K1	AT	20/02/2000	007°16' N	097°03' E	007°16' N	097°05' E	944	912	ND	C. Aungtonya & V. Vongpanich
	BC	06/05/1996	007°00' N	099°24' E	-	-	21	-	mud with shell fragments	S. Bussarawit & C. Aungtonya
	OS	06/05/1996	007°00' N	099°24' E	007°00' N	099°24' E	22	-	mud with shell fragments	S. Bussarawit & C. Aungtonya
K2	TD	06/05/1996	007°00' N	099°24' E	007°00' N	099°24' E	20	-	ND	S. Bussarawit & C. Aungtonya
	BC	06/05/1996	007°00' N	099°16' E	-	-	43	-	soft mud	S. Bussarawit & C. Aungtonya
	OS	06/05/1996	007°00' N	099°15' E	007°00' N	099°14' E	45	-	soft mud	S. Bussarawit & C. Aungtonya
K2	OS	24/02/1998	007°00' N	099°16' E	007°00' N	099°15' E	41	-	soft mud	S. Bussarawit & C. Aungtonya
	HS	27/02/2000	007°00' N	099°16' E	007°00' N	099°16' E	43	42	mud with shell fragments	C. Aungtonya & V. Vongpanich
	TD	06/05/1996	007°00' N	099°16' E	007°00' N	099°15' E	44	-	ND	S. Bussarawit & C. Aungtonya
K2	TD	24/02/1998	007°00' N	099°15' E	007°00' N	099°16' E	42	-	ND	S. Bussarawit & C. Aungtonya
	BC	06/05/1996	007°00' N	098°59' E	-	-	63	-	soft mud	S. Bussarawit & C. Aungtonya
	OS	06/05/1996	007°00' N	099°00' E	007°01' N	099°00' E	60	-	soft mud	S. Bussarawit & C. Aungtonya
K2	OS	24/02/1998	007°00' N	099°04' E	006°59' N	099°04' E	53	-	soft mud	S. Bussarawit & C. Aungtonya

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Appendix 1 (continued.)

Station	Gear	Date	Start Point		End Point		Depth (m)		Type of sediment	Collector
			Lat.	Long.	Lat.	Long.	Start	End		
K3	TD	06/05/1996	00790 N	09859 E	00790 N	09859 E	64	-	ND	S. Bussarawit & C. Aungtonya
	TD	24/02/1998	00790 N	09904 E	00790 N	09904 E	55	-	ND	S. Bussarawit & C. Aungtonya
	T	24/02/1998	00790 N	09904 E	00790 N	09908 E	52	-	ND	S. Bussarawit & C. Aungtonya
	BC	05/05/1996	00790 N	09841 E	-	-	83	-	sandy mud	S. Bussarawit & C. Aungtonya
	OS	05/05/1996	00659 N	09842 E	00659 N	09842 E	82	-	sandy mud	S. Bussarawit & C. Aungtonya
	HS	29/02/2000	00792 N	09843 E	00792 N	09843 E	81	81	sand with shell fragments	C. Aungtonya & V. Vongpanich
K4	TD	05/05/1996	00790 N	09842 E	00790 N	09842 E	83	-	ND	S. Bussarawit & C. Aungtonya
	AT	29/02/2000	00790 N	09841 E	00790 N	09843 E	83	81	ND	C. Aungtonya & V. Vongpanich
	BC	07/05/1996	00790 N	09821 E	-	-	105	-	sand with shell fragments	S. Bussarawit & C. Aungtonya
	G	15/11/1999	00659 N	09821 E	-	-	103	-	mud with shell fragments	C. Aungtonya & V. Vongpanich
	HS	29/02/2000	00790 N	09820 E	00790 N	09820 E	108	110	mud with shell fragments	C. Aungtonya & V. Vongpanich
	TD	15/11/1999	00659 N	09820 E	00659 N	09820 E	107	109	mud with shell fragments	C. Aungtonya & V. Vongpanich
K5	AT	23/02/2000	00790 N	09821 E	00659 N	09821 E	104	101	ND	C. Aungtonya & V. Vongpanich
	T	23/02/2000	00790 N	09819 E	00790 N	09818 E	119	116	ND	C. Aungtonya & V. Vongpanich
	BC	07/05/1996	00790 N	09812 E	-	-	220	-	gravel	S. Bussarawit & C. Aungtonya
	HS	01/03/2000	00790 N	09812 E	00790 N	09812 E	217	217	sand with shell fragments	C. Aungtonya & V. Vongpanich
	T	01/03/2000	00792 N	09810 E	00794 N	09809 E	277	288	ND	C. Aungtonya & V. Vongpanich
	RD	18/11/1999	00790 N	09746 E	00790 N	09746 E	389	389	ND	C. Aungtonya & V. Vongpanich
K6	G	17/11/1999	00790 N	09725 E	-	-	540	-	mud	C. Aungtonya & V. Vongpanich
	HS	18/11/1999	00790 N	09729 E	00790 N	09729 E	504	504	mud	C. Aungtonya & V. Vongpanich
	AT	17/11/1999	00790 N	09726 E	00790 N	09728 E	556	520	ND	C. Aungtonya & V. Vongpanich
	G	16/11/1999	00790 N	09722 E	-	-	640	-	mud	C. Aungtonya & V. Vongpanich
	G	17/11/1999	00659 N	09720 E	-	-	712	-	mud	C. Aungtonya & V. Vongpanich
	AT	17/11/1999	00790 N	09720 E	00790 N	09720 E	690	684	ND	C. Aungtonya & V. Vongpanich
K7	HS	17/11/1999	00792 N	09718 E	00792 N	09718 E	760	764	mud	C. Aungtonya & V. Vongpanich
	AT	16/11/1999	00790 N	09718 E	00790 N	09721 E	828	684	ND	C. Aungtonya & V. Vongpanich
	BC	20/02/2000	00790 N	09714 E	-	-	940	-	mud	C. Aungtonya & V. Vongpanich
	BC	06/05/1996	00645 N	09921 E	-	-	38	-	sandy mud with shell fragments	S. Bussarawit & C. Aungtonya
	OS	06/05/1996	00646 N	09921 E	00646 N	09921 E	38	-	sandy mud with shell fragments	S. Bussarawit & C. Aungtonya
	OS	24/02/1998	00649 N	09921 E	00648 N	09921 E	39	-	sandy mud with shell fragments	S. Bussarawit & C. Aungtonya
K8	HS	28/02/2000	00645 N	09921 E	00645 N	09921 E	38	38	sand with shell fragments	C. Aungtonya & V. Vongpanich
	TD	06/05/1996	00645 N	09921 E	00645 N	09921 E	38	-	ND	S. Bussarawit & C. Aungtonya
	TD	24/02/1998	00649 N	09921 E	00649 N	09921 E	39	-	ND	S. Bussarawit & C. Aungtonya
	AT	28/02/2000	00645 N	09921 E	00646 N	09919 E	39	41	ND	C. Aungtonya & V. Vongpanich

Appendix 1 (continued.)

Station	Gear	Date	Start Point		End Point		Depth (m)		Type of sediment	Collector
			Lat.	Long.	Lat.	Long.	Start	End		
L2	T	25/02/1998	006°45' N	099°18' E	006°46' N	099°16' E	47	-	soft mud	S. Bussarawit & C. Aungtonya
	BC	05/05/1996	006°46' N	099°04' E	-	-	59	-	soft mud	S. Bussarawit & C. Aungtonya
	OS	05/05/1996	006°44' N	099°05' E	006°44' N	099°05' E	56	-	soft mud	S. Bussarawit & C. Aungtonya
	OS	25/02/1998	006°43' N	099°03' E	006°43' N	099°04' E	61	-	soft mud	S. Bussarawit & C. Aungtonya
	HS	28/02/2000	006°45' N	099°02' E	006°45' N	099°02' E	63	64	sand with shell fragments	C. Aungtonya & V. Vongpanich
L3	TD	05/05/1996	006°45' N	099°04' E	006°45' N	099°05' E	59	-	ND	S. Bussarawit & C. Aungtonya
	TD	25/02/1998	006°44' N	099°04' E	006°43' N	099°03' E	59	-	ND	S. Bussarawit & C. Aungtonya
	AT	28/02/2000	006°45' N	099°04' E	006°45' N	099°02' E	59	63	ND	C. Aungtonya & V. Vongpanich
	BC	05/05/1996	006°45' N	098°45' E	-	-	83	-	sandy mud with shell fragments	S. Bussarawit & C. Aungtonya
	OS	05/05/1996	006°46' N	098°45' E	006°46' N	098°45' E	83	-	sandy mud with shell fragments	S. Bussarawit & C. Aungtonya
L4	HS	29/02/2000	006°45' N	098°45' E	006°45' N	098°45' E	82	81	sandy mud with shell fragments	C. Aungtonya & V. Vongpanich
	TD	05/05/1996	006°45' N	098°45' E	006°46' N	098°45' E	83	-	ND	S. Bussarawit & C. Aungtonya
	AT	29/02/2000	006°45' N	098°43' E	006°46' N	098°41' E	83	84	ND	C. Aungtonya & V. Vongpanich
	TD	23/02/2000	006°45' N	098°17' E	006°45' N	098°17' E	118	118	ND	C. Aungtonya & V. Vongpanich
	AT	23/02/2000	006°45' N	098°18' E	006°44' N	098°19' E	113	109	ND	C. Aungtonya & V. Vongpanich
L6	BC	23/02/2000	006°45' N	098°07' E	-	-	300	-	mud with shell fragments	C. Aungtonya & V. Vongpanich
	OS	23/02/2000	006°45' N	098°04' E	006°45' N	098°04' E	317	317	sand with shell fragments	C. Aungtonya & V. Vongpanich
	TD	23/02/2000	006°45' N	098°02' E	006°45' N	098°02' E	320	321	ND	C. Aungtonya & V. Vongpanich
	AT	23/02/2000	006°45' N	098°06' E	006°44' N	098°05' E	303	313	ND	C. Aungtonya & V. Vongpanich
	BC	22/02/2000	006°45' N	097°34' E	-	-	512	-	mud	C. Aungtonya & V. Vongpanich
L8	OS	22/02/2000	006°45' N	097°35' E	006°45' N	097°35' E	503	503	mud	C. Aungtonya & V. Vongpanich
	AT	22/02/2000	006°45' N	097°36' E	006°44' N	097°34' E	482	507	ND	C. Aungtonya & V. Vongpanich
	T	22/02/2000	006°46' N	097°33' E	006°44' N	097°35' E	513	501	ND	C. Aungtonya & V. Vongpanich
	BC	22/02/2000	006°45' N	097°24' E	-	-	699	-	mud	C. Aungtonya & V. Vongpanich
	OS	21/02/2000	006°44' N	097°25' E	006°44' N	097°24' E	690	693	ND	C. Aungtonya & V. Vongpanich
L10	OS	22/02/2000	006°43' N	097°25' E	006°43' N	097°25' E	675	677	mud	C. Aungtonya & V. Vongpanich
	AT	21/02/2000	006°45' N	097°23' E	006°44' N	097°26' E	707	651	ND	C. Aungtonya & V. Vongpanich
	BC	21/02/2000	006°45' N	097°18' E	-	-	918	-	mud	C. Aungtonya & V. Vongpanich
	OS	21/02/2000	006°45' N	097°20' E	006°45' N	097°20' E	860	860	mud	C. Aungtonya & V. Vongpanich
	AT	21/02/2000	006°45' N	097°18' E	006°45' N	097°16' E	940	988	ND	C. Aungtonya & V. Vongpanich
RN1	BC	08/05/1996	007°30' N	098°22' E	-	-	63	-	sandy mud	S. Bussarawit & C. Aungtonya
	OS	08/05/1996	007°30' N	098°22' E	007°29' N	098°22' E	64	-	sandy mud	S. Bussarawit & C. Aungtonya
RN2	TD	08/05/1996	007°30' N	098°22' E	007°30' N	098°22' E	63	-	ND	S. Bussarawit & C. Aungtonya
	BC	08/05/1996	007°26' N	098°19' E	-	-	75	-	sand with shell fragments	S. Bussarawit & C. Aungtonya

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Appendix 1 (continued.)

Station	Gear	Date	Start Point		End Point		Depth (m)		Type of sediment	Collector
			Lat.	Long.	Lat.	Long.	Start	End		
RN3	OS	08/05/1996	00726 N	09818 E	00726 N	09818 E	75	-	sand with shell fragments	S. Bussarawit & C. Aungtonya
	TD	08/05/1996	00726 N	09818 E	00726 N	09818 E	74	-	ND	S. Bussarawit & C. Aungtonya
	BC	08/05/1996	00730 N	09817 E	-	-	72	-	muddy sand	S. Bussarawit & C. Aungtonya
RY1	OS	08/05/1996	00730 N	09817 E	00730 N	09817 E	72	-	muddy sand	S. Bussarawit & C. Aungtonya
	TD	08/05/1996	00730 N	09818 E	00731 N	09818 E	70	-	ND	S. Bussarawit & C. Aungtonya
	BC	08/05/1996	00736 N	09819 E	-	-	55	-	sand with shell fragments	S. Bussarawit & C. Aungtonya
RY2	OS	08/05/1996	00737 N	09820 E	00737 N	09820 E	55	-	sand with shell fragments	S. Bussarawit & C. Aungtonya
	OS	22/02/1998	00735 N	09816 E	00734 N	09817 E	68	-	sand with shell fragments	S. Bussarawit & C. Aungtonya
	TD	08/05/1996	00736 N	09819 E	00737 N	09820 E	55	-	sand with shell fragments	S. Bussarawit & C. Aungtonya
RY3	TD	22/02/1998	00735 N	09816 E	00735 N	09816 E	70	-	ND	S. Bussarawit & C. Aungtonya
	BT	01/12/1998	00737 N	09815 E	00736 N	09813 E	67	-	ND	S. Bussarawit & C. Aungtonya
	T	02/12/1998	00737 N	09816 E	00738 N	09817 E	71	-	ND	S. Bussarawit
PB1	BC	08/05/1996	00739 N	09823 E	-	-	45	-	sand with shell fragments	S. Bussarawit
	OS	08/05/1996	00740 N	09824 E	00739 N	09824 E	44	-	sand with shell fragments	S. Bussarawit & C. Aungtonya
	TD	08/05/1996	00739 N	09824 E	00738 N	09824 E	43	-	ND	S. Bussarawit & C. Aungtonya
PB2	BC	08/05/1996	00736 N	09825 E	-	-	49	-	muddy sand	S. Bussarawit & C. Aungtonya
	OS	08/05/1996	00736 N	09825 E	00735 N	09826 E	50	-	muddy sand	S. Bussarawit & C. Aungtonya
	TD	08/05/1996	00735 N	09826 E	00735 N	09826 E	52	-	ND	S. Bussarawit & C. Aungtonya
PB3	BC	23/04/1997	00800 N	09829 E	-	-	19	-	sand with shell fragments	S. Bussarawit
	OS	23/04/1997	00800 N	09829 E	00800 N	09829 E	17	-	sand with shell fragments	S. Bussarawit
	TD	23/04/1997	00759 N	09829 E	00759 N	09829 E	14	-	ND	S. Bussarawit
PB4	BC	22/04/1997	00800 N	09839 E	-	-	17	-	sand with shell fragments	S. Bussarawit
	OS	22/04/1997	00759 N	09839 E	00758 N	09839 E	20	-	sand with shell fragments	S. Bussarawit
	TD	22/04/1997	00800 N	09838 E	00759 N	09839 E	15	-	sand with shell fragments	S. Bussarawit
PB5	BC	23/04/1997	00751 N	09832 E	-	-	22	-	sand with shell fragments	S. Bussarawit
	OS	23/04/1997	00751 N	09831 E	00752 N	09831 E	20	-	sand with shell fragments	S. Bussarawit
	OS	21/02/1998	00751 N	09834 E	00751 N	09834 E	28	-	sand with shell fragments	S. Bussarawit & C. Aungtonya
PB6	OS	27/02/1998	00748 N	09831 E	00748 N	09830 E	24	-	ND	S. Bussarawit & C. Aungtonya
	OS	04/12/1998	00749 N	09831 E	00749 N	09831 E	22	-	ND	S. Bussarawit
	TD	23/04/1997	00752 N	09831 E	00752 N	09830 E	22	-	ND	S. Bussarawit
PB7	TD	21/02/1998	00751 N	09832 E	00751 N	09833 E	33	-	ND	S. Bussarawit & C. Aungtonya
	TD	04/12/1998	00748 N	09831 E	00749 N	09831 E	20	-	ND	S. Bussarawit
	T	21/04/1997	00748 N	09828 E	00749 N	09832 E	21	-	ND	S. Bussarawit
PB8	T	04/12/1998	00748 N	09829 E	00749 N	09831 E	22	-	ND	S. Bussarawit

Appendix 1 (continued.)

Station	Gear	Date	Start Point		End Point		Depth (m)		Type of sediment	Collector
			Lat.	Long.	Lat.	Long.	Start	End		
PB3-PB4	T	21/02/1998	007°51' N	098°37' E	007°51' N	098°39' E	21	-	ND	S. Bussarawit & C. Aungtonya
	T	04/12/1998	007°51' N	098°38' E	007°49' N	098°40' E	22	-	ND	S. Bussarawit
	BC	22/04/1997	007°52' N	098°41' E	-	-	32	-	sand with shell fragments	S. Bussarawit
PB4	OS	22/04/1997	007°52' N	098°41' E	007°52' N	098°41' E	31	-	sand with shell fragments	S. Bussarawit
	OS	21/02/1998	007°52' N	098°41' E	007°52' N	098°42' E	29	-	sand with shell fragments	S. Bussarawit & C. Aungtonya
	TD	22/04/1997	007°52' N	098°41' E	007°52' N	098°42' E	33	-	ND	S. Bussarawit
PB5	TD	21/02/1998	007°52' N	098°40' E	007°52' N	098°41' E	29	-	ND	S. Bussarawit & C. Aungtonya
	BC	22/04/1997	007°52' N	098°48' E	-	-	21	-	sand with shell fragments	S. Bussarawit
PB6	BC	22/04/1997	007°45' N	098°32' E	-	-	30	-	sand with shell fragments	S. Bussarawit
	OS	22/04/1997	007°45' N	098°32' E	007°45' N	098°32' E	30	-	sand with shell fragments	S. Bussarawit
PB7	OS	21/02/1998	007°43' N	098°33' E	007°44' N	098°33' E	37	-	sand with shell fragments	S. Bussarawit & C. Aungtonya
	TD	22/04/1997	007°46' N	098°31' E	007°47' N	098°31' E	27	-	ND	S. Bussarawit
	TD	21/02/1998	007°44' N	098°33' E	007°44' N	098°32' E	34	-	ND	S. Bussarawit & C. Aungtonya
	T	27/02/1998	007°45' N	098°36' E	007°47' N	098°34' E	24	-	ND	S. Bussarawit & C. Aungtonya
	BC	22/04/1997	007°45' N	098°41' E	-	-	29	-	sand with shell fragments	S. Bussarawit
	OS	22/04/1997	007°45' N	098°41' E	007°45' N	098°41' E	32	-	sand with shell fragments	S. Bussarawit
PB8	OS	21/02/1998	007°44' N	098°41' E	007°44' N	098°41' E	32	-	sand with shell fragments	S. Bussarawit & C. Aungtonya
	TD	22/04/1997	007°45' N	098°40' E	007°45' N	098°40' E	30	-	ND	S. Bussarawit
PB9	TD	21/02/1998	007°45' N	098°42' E	007°44' N	098°41' E	30	-	ND	S. Bussarawit & C. Aungtonya
	T	21/02/1998	007°44' N	098°40' E	007°43' N	098°36' E	32	-	ND	S. Bussarawit & C. Aungtonya
PB10	BC	22/04/1997	007°45' N	098°52' E	-	-	19	-	sand with shell fragments	S. Bussarawit
	OS	22/04/1997	007°45' N	098°51' E	007°44' N	098°51' E	19	-	sand with shell fragments	S. Bussarawit
U1	TD	22/04/1997	007°44' N	098°51' E	007°44' N	098°50' E	22	-	ND	S. Bussarawit
	TD	05/12/1998	007°40' N	098°37' E	007°39' N	098°37' E	36	-	ND	S. Bussarawit
U2	OS	05/12/1998	007°36' N	098°34' E	007°36' N	098°34' E	41	-	ND	S. Bussarawit
	T	05/12/1998	007°36' N	098°34' E	007°32' N	098°33' E	44	-	ND	S. Bussarawit
U3	G	19/04/1997	006°49' N	097°45' E	-	-	400	-	sandy mud	S. Bussarawit
	OS	19/04/1997	006°46' N	097°44' E	006°46' N	097°44' E	416	-	sandy mud	S. Bussarawit
U4	TD	19/04/1997	006°48' N	097°45' E	006°46' N	097°44' E	402	-	ND	S. Bussarawit
	G	18/04/1997	007°03' N	097°32' E	-	-	476	-	sandy mud	S. Bussarawit
U5	TD	18/04/1997	007°04' N	097°31' E	007°05' N	097°31' E	476	-	ND	S. Bussarawit
	G	17/04/1997	006°55' N	097°22' E	-	-	669	-	soft mud	S. Bussarawit
U6	TD	17/04/1997	006°57' N	097°22' E	006°56' N	097°21' E	651	-	ND	S. Bussarawit
	G	15/04/1997	007°02' N	097°08' E	-	-	989	-	soft mud	S. Bussarawit

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Appendix 1 (continued.)

Station	Gear	Date	Start Point		End Point		Depth (m)		Type of sediment	Collector
			Lat.	Long.	Lat.	Long.	Start	End		
	G	28/01/1999	00707 N	09704 E	-	-	965		mud	S. Bussarawit & C. Aungtonya
	G	16/11/1999	00706 N	09704 E	-	-	964		mud	C. Aungtonya & V. Vongpanich
	OS	28/01/1999	00706 N	09705 E	00706 N	09705 E	960	960	mud	S. Bussarawit & C. Aungtonya
	AT	16/11/1999	00707 N	09703 E	00707 N	09701 E	967	964	ND	C. Aungtonya & V. Vongpanich
U5	G	15/04/1997	00656 N	09703 E	-	-	1020	-	soft mud	S. Bussarawit
U6	BC	09/04/1997	00721 N	09751 E	-	-	324	-	rock	S. Bussarawit
	G	09/04/1997	00721 N	09750 E	-	-	324	-	rock	S. Bussarawit
	TD	09/04/1997	00721 N	09751 E	00720 N	09750 E	324	-	ND	S. Bussarawit
U7	G	13/04/1997	00719 N	09659 E	-	-	929	-	soft mud	S. Bussarawit
	TD	13/04/1997	00716 N	09659 E	00715 N	09659 E	935	-	ND	S. Bussarawit
U8	G	11/04/1997	00756 N	09648 E	-	-	640	-	soft mud	S. Bussarawit
	TD	11/04/1997	00755 N	09647 E	00753 N	09646 E	643	-	ND	S. Bussarawit
U9	G	14/04/1997	00700 N	09651 E	-	-	1020	-	soft mud	S. Bussarawit
	OS	14/04/1997	00700 N	09651 E	00700 N	09652 E	1020	-	soft mud	S. Bussarawit
	TD	14/04/1997	00659 N	09654 E	00658 N	09656 E	1020	-	soft mud	S. Bussarawit
U10	BC	12/04/1997	00725 N	09615 E	-	-	880	-	soft mud	S. Bussarawit
	G	12/04/1997	00725 N	09615 E	-	-	879	-	soft mud	S. Bussarawit
	TD	12/04/1997	00725 N	09618 E	00725 N	09620 E	878	-	ND	S. Bussarawit
T1	OS	24/02/1998	00702 N	09850 E	00701 N	09850 E	75	-	sandy mud	S. Bussarawit & C. Aungtonya
	TD	24/02/1998	00702 N	09849 E	00702 N	09850 E	76	-	ND	S. Bussarawit & C. Aungtonya
T2	OS	25/02/1998	00643 N	09857 E	00644 N	09857 E	72	-	sandy mud with shell fragments	S. Bussarawit & C. Aungtonya
	TD	25/02/1998	00643 N	09858 E	00643 N	09857 E	71	-	ND	S. Bussarawit & C. Aungtonya
T3	T	03/12/1998	00752 N	09806 E	00750 N	09806 E	68	-	ND	S. Bussarawit
Z1	G	10/02/1999	00907 N	09705 E	-	-	360	-	gravel	S. Bussarawit & C. Aungtonya
	TD	10/02/1999	00907 N	09705 E	00906 N	09706 E	358	356	ND	S. Bussarawit & C. Aungtonya
Z2	G	23/01/1999	00742 N	09728 E	-	-	467	-	sand	S. Bussarawit & C. Aungtonya
	OS	24/01/1999	00742 N	09729 E	00742 N	09729 E	458	480	sand	S. Bussarawit & C. Aungtonya
Z3	T	23/01/1999	00742 N	09728 E	00742 N	09731 E	464	464	ND	S. Bussarawit & C. Aungtonya
	T	24/01/1999	00742 N	09720 E	00742 N	09718 E	493	322	ND	S. Bussarawit & C. Aungtonya
Z4	OS	25/01/1999	00735 N	09706 E	00735 N	09707 E	620	610	mud	S. Bussarawit & C. Aungtonya
	T	25/01/1999	00734 N	09703 E	00735 N	09704 E	660	633	ND	S. Bussarawit & C. Aungtonya
Z5	G	24/01/1999	00738 N	09657 E	-	-	713	-	mud	S. Bussarawit & C. Aungtonya
Z6	OS	27/01/1999	00725 N	09722 E	00725 N	09721 E	541	551	mud	S. Bussarawit & C. Aungtonya

Appendix 1 (continued.)

Station	Gear	Date	Start Point		End Point		Depth (m)		Type of sediment	Collector
			Lat.	Long.	Lat.	Long.	Start	End		
Supplementary crustacean material:										
NBA	OS	23/11/1997	00737 N	09817 E	-	-	50	-	coarse sand	N. Bruce & G. Dinesen
NBB	OS	27/11/1997	00740 N	09820 E	-	-	60	-	coarse sand	N. Bruce & G. Dinesen
NBC	OS	03/12/1997	00743 N	09824 E	-	-	45	-	coarse sand	N. Bruce & G. Dinesen
NBD	OS	09/12/1997	00744 N	09824 E	-	-	40	-	coarse sand	N. Bruce & G. Dinesen
Aeo Island (NW bay)	SCUBA	26/11/1998	00745 N	09824 E	-	-	max. Depth 6 m.		ND	A. Myers, J. Lowry, R. Evans, M. Huggett, M. Storey, P. Davie, and G. Dinesen
Dok Mai Island	SCUBA	04/12/1998	00747 N	09832 E	-	-	max. Depth 25 m.	-	ND	same as above
Hae Island (north bay)	SCUBA	02/11/1998	00745 N	09823 E	-	-	max. Depth 8.5 m.	-	ND	same as above
Hae Island (south bay)	SCUBA	09/12/1998	00744 N	09822 E	-	-	max. Depth 12 m.	-	ND	same as above
Hae Island (north bay)	SCUBA	09/12/1998	00745 N	09823 E	-	-	max. Depth 10 m.	-	ND	same as above
Racha Yai Island (south point)	SCUBA	05/12/1998	00735 N	09821 E	-	-	max. Depth 30 m.	-	ND	same as above
Racha Yai Island (NW bay)	SCUBA	05/12/1998	00736 N	09822 E	-	-	max. Depth 12 m.	-	ND	same as above
Racha Noi Island (south bay)	SCUBA	14/12/1998	00728 N	09818 E	-	-	max. Depth 25 m.	-	ND	same as above
Racha Noi Island (NW bay)	SCUBA	14/12/1998	00727 N	09818 E	-	-	max. Depth 15 m.	-	ND	same as above
Racha Noi Island about 30 mile from south of Racha Noi Island	Trap	08/11/1999	00731 N	09820 E	-	-	47	-	ND	C. Aungtonya & V. Vongpanich
	Trap	15/11/1999	00700 N	09825 E	-	-	75	-	ND	C. Aungtonya & V. Vongpanich
Ta Chai Island	Trap	02/02/2000	00904 N	09748 E	-	-	45	-	ND	C. Aungtonya & V. Vongpanich
Hin Dang Island	Trap	26/02/2000	00709 N	09850 E	-	-	65	-	ND	C. Aungtonya & V. Vongpanich
Adang Island	Trap	27/02/2000	00630 N	09918 E	-	-	22	-	ND	C. Aungtonya & V. Vongpanich
Bu Tang Island	Trap	28/02/2000	00631 N	09909 E	-	-	46	-	ND	C. Aungtonya & V. Vongpanich