

CHECKLIST OF POLYCHAETE SPECIES FROM SINGAPORE WATERS (ANNELIDA)

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ABSTRACT. - A checklist of 64 benthic polychaete species from 28 families was compiled, based on collections from six locations around Singapore waters and also from published records. The locations included Sungei Buloh, Singapore River, Kallang Basin, Pulau Semakau, Pulau Ayer Chawan and Pulau Tekong. Of the 64 species, 29 are considered to be first records. In addition, two species, *Lumbrineris hartmani* (Day) and *Prionospio komaeti* Hylleberg & Nateewathana, are first records outside their type localities in False Bay, South Africa, and west coast of Phuket Island respectively. It was also shown that a great proportion of the polychaete fauna appears to be essentially Indo-Pacific and belonging to the tropical Indo-Malayan subregion of the Indo-West Pacific province.

INTRODUCTION

The earliest record of Singapore polychaetes was made by Monro (1931), based on a collection sent to him from the former Raffles Museum of Singapore. Monro listed a total of 16 species from six families. The majority of these specimens were collected mainly from Pulau Sambu near Singapore, Tanjong Rhu, Pulau Renggis near Blakang Mati (= Sentosa), Siglap and Sultan Shoal Lighthouse while only a few were from the Malay Archipelago and the China Sea. The collection has now been transferred to the Zoological Reference Collection (ZRC) of the Department of Zoology, National University of Singapore.

Fauvel (1953) recorded 20 species from eight families from local waters but the distribution was not indicated. Chuang (1961) also listed some errant polychaetes (five families) along selected shore sites of Singapore beaches. However, he only gave a non-technical account of the common marine animals and plants, hence scientific terms were reduced to a minimum. Lee (1973) has also given a polychaete listing of 18 families and 35 genera based on a survey of the macrobenthos of the eastern Johor Straits in 1972, along with key to the families. However, all the specimens were identified to the generic level and the key only included prominent families featured in the survey. Studies such as the breeding seasons of invertebrates, including polychaetes, were conducted by Vohra (1972) along the shore of Kampong Mata Ikan. In this study, he had provided a list of polychaete species, of which 12 were identified to specific level.

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Since the last deposition of polychaetes in ZRC (collected by C. M. Yang from a Sentosa (an island south of Singapore) reef flat in 1981), no other major collection had been made prior to the ones contributed by the Reef Ecology Study Team, Department of Zoology, National University of Singapore.

In recent years, benthic surveys have been conducted by the Reef Ecology Study Team under the ASEAN-Australia Marine Science Project: Living Coastal Resources. Study sites (Figure 1) which have been described were Singapore River (Yip *et al.*, 1987, Goh & Loo, 1990), Kallang Basin (Chua & Loo, 1990), Sungei Buloh (Chou & Chong, 1990, Chuang *et al.*, 1991, Quek & Chua, 1990), Sungei Punggol (Chong *et al.*, 1990), West Johor Strait (Lim & Gan, 1990), as well as the surrounding southern islands of Pulau Semakau (Sin *et al.*, 1991), Pulau Tekong (Chung & Goh, 1990) and Pulau Ayer Chawan (Lim & Koh, 1990).

Due to the lack of information on the status of local polychaetes, a study was carried out by Tan (1993) on the taxonomy and distribution of soft-bottom polychaetes in Singapore. The study was based on polychaete specimens collected from some of the above mentioned surveys. This paper presents a checklist of polychaete species based on this unpublished work, as well as those surveyed from the literature.

MATERIALS AND METHODS

Polychaete species collected from six locations around Singapore were considered for this checklist (Fig. 1). These locations were Sungei Buloh (1988-1990), Kallang Basin (1987-1988), Singapore River (1987), Pulau Tekong (1987), Pulau Ayer Chawan (1986), and Pulau Semakau (1989). The first three locations are estuarine while the rest are marine. In addition, the checklist was also based on surveys of the literature such as Monro (1931), Fauvel (1953) and Vohra (1972).

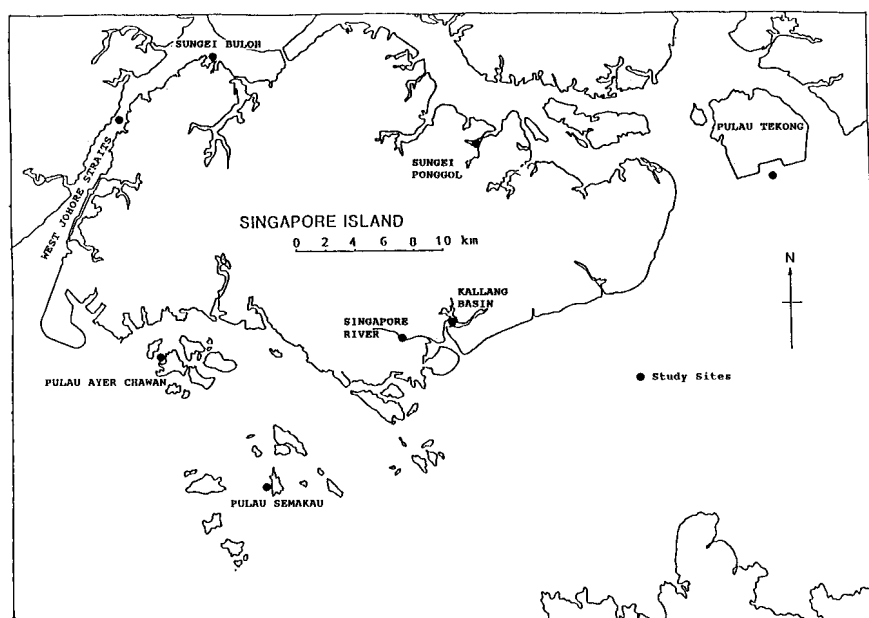


Fig. 1. Map of Singapore showing the collection sites.

Collections of polychaete specimens from the six locations were carried out by using four types of gear: the Ekman grab, Smith McIntyre grab, Naturalist's Rectangular dredge and the Ockelmann sledge. The materials and methods used were based on those described in Dartnall and Jones (1986), with modifications. A detailed description of these methods with modifications can be found in Chua & Loo (1990) for Ekman grab/Naturalist's Rectangular dredge and Sin *et al.* (1991) for Smith McIntyre grab/Ockelmann sledge. A summary of the survey schedules, number of sampling stations per location and the types of sampling gear used in each location can also be found in Tan (1993).

The nomenclature used in this checklist for specimens was derived mainly from Wesenberg-Lund (1949), Fauvel (1953), Imajima & Hartman (1964), Day (1967), Hartman (1968, 1969), Fauchald (1977, 1992), Blake & Kudenov (1978), Wu *et al.* (1985) and Hylleberg & Nateewathana (1991). Polychaete specimens with catalogue numbers were deposited in the Zoological Reference Collection (ZRC) of the Department of Zoology, National University of Singapore.

SYSTEMATICS

FAMILY APHRODITIDAE KINBERG

Pontogenia indica Grube

Pontogenia indica.-Fauvel, 1953:29

Distribution.- Singapore.

FAMILY POLYNOIDAE KINBERG

Paralepidonotus ampulliferus (Grube)

Harmothoe ampullifera.-Fauvel, 1953:43, fig. 18d.

Paralepidonotus ampulliferus.-Horst, 1917:76.

Distribution.- Singapore.

Iphione muricata (Savigny)

Iphione muricata.-Monro, 1931:35.

Distribution.- Singapore, Pulau Renggis near Blakang Mati (= Sentosa), Sultan Shoal Light-house, 2 spec. (ZRC 1974.12.5.9, ZRC 1974.12.5.10).

FAMILY AMPHINOMIDAE SAVIGNY

Chloeia flava (Pallas)

Chloeia flava.-Monro, 1931:34.-Fauvel, 1953:96, fig. 46d.

Distribution.- Singapore, Pulau Sambu; Tanjong Rhu, 2 spec. (ZRC 1974.12.4.1, ZRC 1974.12.4.2).

***Eurythoe complanata* (Pallas)**

Eurythoe complanata.-Monro, 1931:35.

Distribution.- Singapore, Pulau Renggis near Blakang Mati (= Sentosa), 8 spec. (ZRC 1974.12.5.1-8).

FAMILY HESIONIDAE GRUBE

***Leocrates claparedii* (Costa)**

Leocrates claparedii.-Fauvel, 1953:106, fig.50 c-g.

Distribution.- Singapore.

***Podarke latifrons* (Grube)**

Podarke latifrons.-Fauvel, 1953:110, fig.51 d-f.

Distribution.- Singapore.

FAMILY PHYLLODOCIDAE WILLIAMS

***Anaitides madeirensis* Langerhans**

Phyllodoce madeirensis.-Wesenberg-Lund, 1949:272.

Distribution.- Pulau Semakau, 1 spec. (ZRC 1991.5406).

***Eteone (Mysta) siphodonta* (Delle Chiaje)**

Eteone (Mysta) siphodonta.-Day, 1967:140, fig. 5.1. a-e.

Distribution.- Sungei Buloh.

***Eulalia (Pterocirrus) magalhaensis* Kinberg**

Eulalia (Pterocirrus) magalhaensis.-Fauvel, 1953:124, fig. 62.

Distribution.- Singapore.

FAMILY ALCIOPIDAE EHLERS

***Naiades cantrainii* Delle Chiaje**

Alciopa cantrainii.-Fauvel, 1953:134, fig. 68 a-c.

Distribution.- Singapore, in plankton.

FAMILY SYLLIDAE GRUBE

Syllis (Haplosyllis) spongicola Grube

Syllis (Haplosyllis) spongicola.-Day, 1967:240, fig. 12.1.e-i.

Distribution.- Pulau Semakau, 153 spec. (ZRC 1991.5222, ZRC 1991.5228-5377, ZRC 1991.5396, ZRC 1991.5421).

Syllis (Syllis) gracilis Grube

Syllis (Syllis) gracilis.-Day, 1967:241, fig. 12.1. m-p.

Distribution.-Pulau Ayer Chawan, 15 spec. (ZRC 1990.3863, ZRC 1990.3824, ZRC 1990.3829, ZRC 1990.3864-3865, ZRC 1990.3870-3874, ZRC 1990.3885, ZRC 1990.3891, ZRC 1990.3954, ZRC 1990.3969-3970).

FAMILY NEREIDIDAE JOHNSTON

Ceratonereis hircinicola? (Eisig)

Ceratonereis hircinicola?.-Vohra, 1972:91.

Distribution.- Singapore, Kampong Mata Ikan shore.

Ceratonereis mirabilis Kinberg

Ceratonereis mirabilis.-Day, 1967:324, fig. 14.10.a-g.

Distribution.- Pulau Semakau, 1 spec. (ZRC 1991.5220).

Leonnates decipiens Fauvel

Leonnates decipiens.-Day, 1967:330, fig. 14.11.n-s.

Distribution.- Sungei Buloh, Singapore River, 8 spec. (ZRC 1990.2279-2282, ZRC 1990.2260-2261, ZRC 1990.831-832).

Leonnates jousseaumei Gravier

Leonnates jousseaumei.-Monro, 1931:43.

Distribution.- Singapore, Pulau Renggis, near Blakang Mati (= Sentosa), 1 spec. (ZRC 1974.12.23.3).

Perinereis barbara Monro

Perinereis barbara.-Fauvel, 1953:204, fig. 103 d-f.

Distribution.- Singapore beach.

Perinereis cultrifera var. *perspicillata* Grube

Nereis (Perinereis) perspicillata.-Monro, 1931:41.

Distribution.- Singapore, Pulau Renggis, near Blakang Mati (= Sentosa).

***Perinereis cultrifera* var. *striolata* Grube**

Perinereis cultrifera var. *striolata*.-Fauvel, 1953:209.

Distribution.- Singapore.

***Perinereis nuntia* var. *brevicirris* (Grube)**

Perinereis nuntia var. *brevicirris*.-Monro, 1931:41.

Distribution.- Singapore, Siglap; Pulau Renggis, near Blakang Mati (= Sentosa), 7 spec. (ZRC 1974.12.9.1-7).

***Perinereis singaporiensis* Grube**

Perinereis singaporiensis.-Monro, 1931:36.-Vohra, 1972:91.

Distribution.- Singapore, Pulau Renggis, near Blakang Mati (= Sentosa), 4 spec. (ZRC 1974.12.26.1-4); Kampong Mata Ikan shore.

***Perinereis vancaurica* (Ehlers)**

Perinereis vancaurica.-Monro, 1931:38.-Fauvel, 1953:205, fig. 105 a-d.

Distribution.- Singapore, 4 spec. (ZRC 1974.12.7.1-4).

FAMILY NEPHTYIDAE GRUBE

***Aglaophamus dibranchis* (Grube)**

Nephtys (*Aglaophamus*) *dibranchis*.-Day, 1967:341, fig. 15.1.a-h.

Distribution.- Pulau Tekong, Pulau Semakau, 5 spec. (ZRC 1991.4452-4453, ZRC 1991.4279, ZRC 1991.5411-5412).

***Nephtys sphaerocirrata* Wesenberg-Lund**

Nephtys sphaerocirrata Wesenberg-Lund, 1949:294, figs. 24-26.

Distribution.- Kallang Basin, 2 spec. (ZRC 1990.6234, ZRC 1990.6225).

FAMILY GLYCERIDAE GRUBE

***Glycera convoluta* Keferstein**

Glycera convoluta.-Day, 1967:360, fig. 16.2.g-j.

Distribution.- Sungei Buloh, Pulau Semakau, 7 spec. (ZRC 1991.11791-11792, ZRC 1991.5630, ZRC 1991.5728, ZRC 1991.5680, ZRC 1991.5408, ZRC 1991.5423).

***Glycera rouxii* Audouin & Milne Edwards**

Glycera rouxii.-Day, 1967:362, fig. 16.3.a-d.

Distribution.- Kallang Basin, Sungei Buloh, Singapore River, 18 spec. (ZRC 1990.7293, ZRC 1990.7301, ZRC 1990.7294, ZRC 1990.6226, ZRC 1990.6196, ZRC 1990.6202, ZRC 1990.6232, ZRC 1990.2250, ZRC 1990.2233, ZRC 1991.11793, ZRC 1991.5081-5082, ZRC 1991.11628, ZRC 1991.5022, ZRC 1990.1000, ZRC 1990.828-830).

FAMILY GONIADIDAE KINBERG

***Goniada cf. maculata* Oersted**

Goniada maculata.-Day, 1967:367, fig. 16.4.k-n.

Distribution.- Pulau Ayer Chawan, 3 spec. (ZRC 1990.3878-3879, ZRC 1990.3886).

Remarks.- Everted proboscis carries only four chevrons, as compared to eight reported in Day (1967).

FAMILY ONUPHIDAE KINBERG

***Diopatra neopolitana* Della Chiaje**

Diopatra neopolitana.-Vohra, 1972:91.

Distribution.- Singapore, Kampong Mata Ikan shore.

FAMILY EUNICIDAE SAVIGNY

***Eunice antennata* (Savigny)**

Eunice antennata.-Fauvel, 1953:240, fig. 118 f-g.

Distribution.- Singapore.

***Eunice aphroditois* (Pallas)**

Eunice aphroditois.-Monro, 1931:44.

Distribution.- Singapore, Blakang Mati (= Sentosa); Sentosa flat reef, 1 spec. (ZRC 1990.387).

***Eunice coccinioides* Augener**

Eunice coccinioides.-Fauchald, 1992:107, fig. 32 a-g.

Distribution.- Pulau Ayer Chawan (1 sp. ZRC 1990.3850-3851).

***Eunice grubei* Gravier**

Eunice grubei.-Fauvel, 1953:237, fig. 119 a-e.

Distribution.- Singapore.

***Eunice hirschi* Fauchald**

Eunice hirschi Fauchald, 1992:171, fig. 56 a-i.

Distribution.- Singapore, Pulau Ayer Chawan, Pulau Tekong, 27 spec. (ZRC 1990.3826-3827, ZRC 1990.3833-3835, ZRC 1990.3893-3899, ZRC 1990.3960-3963 (1), ZRC 1991.5156-5168, ZRC 1991.5141).

***Eunice lucei* Grube**

Eunice lucei.-Fauchald, 1992:201, fig. 67 a-k.

Distribution.- Singapore, Pulau Semakau, 9 spec. (ZRC 1991.5208-5209, ZRC 1991.5215-5217, ZRC 1991.5223, ZRC 1991.5386-5387, ZRC 1991.5405).

***Eunice nesiotas* (Chamberlin)**

Eunice nesiotas.-Fauchald, 1992:235, fig. 79 a-e.

Distribution.- Singapore, Pulau Ayer Chawan, 7 spec. (ZRC 1990.3837, ZRC 1990.3964-3968 (3), ZRC 1990.3960-3962 (3)).

***Euniphysa aculeata* Wesenberg-Lund**

Euniphysa aculeata Wesenberg-Lund, 1949:305, figs. 27-30.

Distribution.- Singapore, Pulau Tekong, Pulau Semakau, 8 spec. (ZRC 1991.5156, ZRC 1991.5225-5226, ZRC 1991.5397-5399, ZRC 1991.5401-5402).

***Marphysa disjuncta* Hartman**

Marphysa disjuncta.-Hartman, 1968:729, figs. 1-3.

Distribution.- Singapore, Pulau Semakau, 1 spec. (ZRC 1991.5383).

***Marphysa macintoshi* Crossland**

Marphysa macintoshi.-Day, 1967:396, fig. 17.6.a-e.

Distribution.- Singapore, Singapore River, Sungei Buloh, 33 spec. (ZRC 1990.845, ZRC 1990.834-844, ZRC 1990.824-827, ZRC 1990.852-853, ZRC 1990.998-999, ZRC 1990.847-850, ZRC 1990.2010-2011, ZRC 1990.854-855, ZRC 1990.2229-2230, ZRC 1991.11658-11659, ZRC 1991.5565).

***Marphysa mossambica* (Peters)**

Eunice mossambica.-Monro, 1931:45.-Vohra, 1972:91.

Distribution.- Singapore, Pulau Renggis, near Blakang Mati (= Sentosa), 4 spec. (ZRC 1974.12.23.6-9); Kampong Mata Ikan shore.

***Lysidice collaris* Grube**

Lysidice collaris.-Monro, 1931:45.-Vohra, 1972:91.

Distribution.- Singapore, Pulau Renggis, near Blakang Mati (= Sentosa), 4 spec. (ZRC 1974.12.26.8-11); Kampong Mata Ikan shore.

FAMILY LUMBRINERIDAE MALMGREN

***Lumbrineris hartmani* (Day)**

Lumbriconereis hartmani.-Day, 1967:440, fig. 17.17.i-k.

Distribution.- Singapore, Sungei Buloh, Kallang Basin, Pulau Tekong, 6 spec. (ZRC 1991.11790, ZRC 1991.5631, ZRC 1991.5714, ZRC 1990.6194, ZRC 1991.4462, ZRC 1991.4258).

Remarks.- This species is considered to be the first record outside its type locality in False Bay, South Africa.

***Lumbrineris latreilli* Audouin & Milne Edwards**

Lumbrineris latreilli.-Day, 1967:438, fig. 17.16.p-t.

Distribution.- Singapore, Pulau Semakau, 4 spec. (ZRC 1991.5381, ZRC 1991.5391, ZRC 1991.5427-5428).

FAMILY ARABELLIDAE HARTMAN

***Arabella iricolor* (Montague)**

Arabella iricolor.-Vohra, 1972:91.

Distribution.- Singapore, Kampong Mata Ikan shore.

FAMILY LYSARETIDAE KINBERG

***Oenone fulgida* (Savigny)**

Aglaurides fulgida.-Fauvel, 1953:250, fig. 125 a-f.

Distribution.- Singapore.

FAMILY SPIONIDAE GRUBE

Prionospio komaeti Hylleberg & Nateewathana

Prionospio komaeti Hylleberg & Nateewathana, 1991:14, fig. 7 a-p.

Distribution.- Singapore, Kallang Basin, Sungei Buloh, Singapore River, Pulau Semakau, 75 spec. (ZRC 1990.6190-6193, ZRC 1990.7326-7334, ZRC 1990.6222, ZRC 1990.6223, ZRC 1990.6183, ZRC 1990.6227-6230, ZRC 1990.7303-7305, ZRC 1990.7289-7292, ZRC 1990.7295, ZRC 1990.7287-7288, ZRC 1991.5088-5090, ZRC 1991.5739-5740, ZRC 1991.5725-5726, ZRC 1991.5691-5695, ZRC 1991.5681-5687, ZRC 1991.5703-5705, ZRC 1991.5664-5666, ZRC 1991.5688-5690, ZRC 1990.2002-2009, ZRC 1990.851, ZRC 1990.856-860, ZRC 1991.5419-5420, ZRC 1991.5390).

Remarks.- This is the first report of this species outside its type locality in the western coast of Phuket Island.

Prionospio malayensis Caullery

Prionospio malayensis-Hylleberg & Nateewathana, 1991:16, fig. 8A-R.

Distribution.- Singapore; Pulau Tekong, 6 spec. (ZRC 1991.4224-4225, ZRC 1991.4289-4290, ZRC 1991.4295, ZRC 1991.5142).

FAMILY POECILOCHAETIDAE HANNERZ

Poecilochaetus serpens Allen

Poecilochaetus serpens.-Day, 1967:520, fig. 21.1.a-j.

Distribution.- Singapore, Sungei Buloh, Kallang Basin, Pulau Semakau, 10 spec. (ZRC 1991.5697-5700, ZRC 1990.6198-6201, ZRC 1990.6224, ZRC 1991.5400).

FAMILY CHAETOPTERIDAE MALMGREN

Chaetopterus variopedatus (Renier)

Chaetopterus variopedatus.-Day, 1967:529, fig. 22.2.a-g.

Distribution.- Singapore, off Changi Point, 1 spec. (ZRC 1992.10666).

Remarks.- This species was first referred to by Johnson (1967) as *Chaetopterus* sp. We have examined this specimen and identified it as *C. variopedatus*.

FAMILY CIRRATULIDAE CARUS

Cirratulus cirratulus Müller

Cirratulus cirratulus.-Vohra, 1972:91.

Distribution.- Singapore, Kampong Mata Ikan shore.

FAMILY OPHELIIDAE MALMGREN

Ammotrypane aulogaster Rathke

Ammotrypane aulogaster.-Vohra, 1972:91.

Distribution.- Singapore, Kampong Mata Ikan shore.

FAMILY CAPITELLIDAE GRUBE

Capitella capitata (Fabricius)

Capitella capitatus.-Day, 1967:595, fig. 28.2.i-m.

Distribution.- Singapore, Sungei Buloh, Pulau Tekong, 50 spec. (ZRC 1990.2285-2286, ZRC 1990.2251-2252, ZRC 1991.5005, ZRC 1991.5028, ZRC 1991.5074-5078, ZRC 1991.5595, ZRC 1991.5613, ZRC 1991.5706, ZRC 1991.11644-11650, ZRC 1991.11654, ZRC 1991.11660-11682, ZRC 1991.4283).

FAMILY MALDANIDAE MALMGREN

Euclymene lombricoides (Quatrefages)

Euclymene lombricoides.-Day, 1967:636, fig. 30.5.e-k.

Distribution.- Singapore, Sungei Buloh, 1 spec. (ZRC 1991.5004).

FAMILY OWENIIDAE RIOJA

Owenia fusiformis Delle Chiaje

Owenia fusiformis.-Vohra, 1972:91.

Distribution.- Singapore, Kampong Mata Ikan shore.

FAMILY FLABELLIGERIDAE SAINT-JOSEPH

Pherusa monroi (Day)

Pherusa monroi.-Day, 1967:660, fig. 32.2.d-g.

Distribution.- Singapore, Pulau Ayer Chawan, Pulau Semakau, 27 spec. (ZRC 1990.3836, ZRC 1990.3900-3923, ZRC 1991.5410, ZRC 1991.5416).

FAMILY TEREPELLIDAE MALMGREN

Loimia medusa (Savigny)

Loimia medusa.-Day, 1967:743, fig. 36.9.a-e.

Distribution.- Singapore, Sungei Buloh, Pulau Ayer Chawan, 4 spec. (ZRC 1991.11653, ZRC 1990.3825, ZRC 1990.3930, ZRC 1990.3932).

Tan & Chou : Singapore polychaetes

***Nicolea gracilibranchis* (Grube)**

Nicolea gracilibranchis.-Fauvel, 1953:420, fig. 220d.

Distribution.- Singapore.

***Thelepus gracilis* (Kinberg)**

Thelepus gracilis.-Fauvel, 1953:437.

Distribution.- Singapore.

***Thelepus setosus* (Quatrefages)**

Thelepus setosa.-Day, 1967:729, fig. 36.6.a.

Distribution.- Singapore, Pulau Tekong, 8 spec. (ZRC 1991.5148-5155).

FAMILY TRICHOBRANCHIDAE MALMGREN

***Terebellides storemi* Sars**

Terebellides storemi.-Vohra, 1972:91.

Distribution.- Singapore, Kampong Mata Ikan shore.

FAMILY SABELLIDAE MALMGREN

***Hypsicomus phaeotaenia* (Schmarela)**

Hypsicomus phaeotaenia.-Vohra, 1972:91.

Distribution.- Singapore, Kampong Mata Ikan shore.

***Potamilla leptochaeta* Southern**

Potamilla leptochaeta.-Vohra, 1972:91.

Distribution.- Singapore, Kampong Mata Ikan shore.

***Pseudopotamilla reniformis* (Müller)**

Potamilla reniformis.-Day, 1967:764, fig. 37.3.a-f.

Distribution.- Singapore, Pulau Ayer Chawan, 1 spec. (ZRC 3838-3842).

***Sabellastarte indica* (Savigny)**

Sabellastarte indica.-Monro, 1931:45.

Distribution.- Singapore.

LIST OF POLYCHAETE SPECIES FROM SINGAPORE

(* indicates new records)

Family Aphroditidae	<i>*Eunice lucei</i>
<i>Pontogenia indica</i>	<i>*Eunice nesioties</i>
	<i>*Euniphysa aculaeta</i>
Family Polynoidae	<i>*Marphysa disjuncta</i>
<i>Paralepidonotus ampullifera</i>	<i>*Marphysa macintoshi</i>
<i>Iphione muricata</i>	<i>Marphysa mossambica</i>
	<i>Lysidice collaris</i>
Family Amphinomidae	
<i>Chloeia flava</i>	Family Arabellidae
<i>Eurythoe complanata</i>	<i>Arabella iricolor</i>
Family Hesionidae	Family Lumbrineridae
<i>Leocrates claparedii</i>	<i>*Lumbrineris hartmani</i>
<i>Podarke latifrons</i>	<i>*Lumbrineris latreilli</i>
Family Phyllodocidae	Family Lysaretidae
<i>*Anaitides madeirensis</i>	<i>Oenone fulgida</i>
<i>*Eteone (Mysta) siphodonta</i>	Family Spionidae
<i>Eulalia (Pterocirrus) magalhaensis</i>	<i>*Prionospio komaeti</i>
Family Alciopidae	<i>*Prionospio malayensis</i>
<i>Naiades cantrainii</i>	Family Poecilochaetidae
Family Syllidae	<i>*Poecilochaetus serpens</i>
<i>*Syllis (Haplosyllis) spongicola</i>	Family Chaetopteridae
<i>*Syllis (Syllis) gracilis</i>	<i>Chaetopterus variopedatus</i>
Family Nereididae	Family Cirratulidae
<i>Ceratonereis hircinicola?</i>	<i>Cirratulus cirratulus</i>
<i>*Ceratonereis mirabilis</i>	Family Opheliidae
<i>*Leonnates decipiens</i>	<i>Ammotrypane aulogaster</i>
<i>Leonnates jouseaumei</i>	Family Capitellidae
<i>Perinereis barbara</i>	<i>*Capitella capitata</i>
<i>Perinereis cultrifera</i> var. <i>perspicillata</i>	Family Maldanidae
<i>Perinereis cultrifera</i> var. <i>striolata</i>	<i>*Euclymene lombricoides</i>
<i>Perinereis nuntia</i> var. <i>brevicirris</i>	Family Oweniidae
<i>Perinereis singaporiensis</i>	<i>Owenia fusiformis</i>
<i>Perinereis vancaurica</i>	Family Flabelligeridae
Family Nephtyidae	<i>*Pherusa monroi</i>
<i>*Aglaophamus dibranchis</i>	Family Terebellidae
<i>*Nephtys sphaerocirrata</i>	<i>*Loimia medusa</i>
Family Glyceridae	<i>Nicolea gracilibranchis</i>
<i>*Glycera convoluta</i>	<i>Thelepus gracilis</i>
<i>*Glycera rouxii</i>	<i>*Thelepus setosus</i>
Family Goniadidae	Family Trichobranchidae
<i>*Goniada cf. maculata</i>	<i>Terebellides storemi</i>
Family Onuphidae	Family Sabellidae
<i>Diopatra neopolitana</i>	<i>Hypsicomus phaeotaenia</i>
Family Eunicidae	<i>*Pseudopotamilla reniformis</i>
<i>Eunice antennata</i>	<i>Potamilla leptochaeta</i>
<i>Eunice aphroditois</i>	<i>Sabellastarte indica</i>
<i>*Eunice coccinioides</i>	
<i>Eunice grubei</i>	
<i>*Eunice hirschi</i>	

DISCUSSION

Of the 28 families comprising 64 species reported so far, the eunicids and the nereids are the two predominant families with 12 and 10 species respectively. As indicated in the species list, all 29 species collected from the six locations were new records in Singapore. In addition, two species, *Lumbrineris hartmani* (Day) and *Prionospio komaeti* Hylleberg & Nateewathana, are first records outside their type locality in South Africa and west coast of Phuket Island, respectively. Excluding the local polychaete species surveyed from Monro (1931), Fauvel (1953) and Vohra (1972) the collection from the six locations in Singapore represented almost a two-fold increase (82.9%) in the number of species. This indicates that much of the polychaete fauna here is yet to be discovered and that many more of these species may represent new records.

Polychaete fauna diversity here (64 species) compares favourably with that in Philippines (49 species in Natividad & Palpal-Latoc, 1986) but pales in comparison with those in Japan, with 467 species (Imajima & Hartman, 1964) and in Hong Kong, with 126 species (Shin, 1982). This, however, does not reflect low polychaete diversity here but probably indicates hitherto low collecting intensity. Furthermore most of the polychaete species recorded here were mainly collected from shallow waters and sublittoral habitats.

It was obvious that the collection of local polychaetes consisted mainly of bottom dwellers, such as those living as epifauna among broken shells or leaf litter or in muddy substratum. Only one pelagic species, *Naiades contrainii*, was reported by Fauvel (1953). This can be explained by the fact that the gear used, i.e. the Ekman grab, Smith McIntyre grab, Ockelmann sledge and Naturalist's Rectangular dredge, sampled only the surface substrata.

Of the 64 polychaete species, eight (12.5%) are considered cosmopolitan; 42 (65.6%) are also known from Indo-Pacific regions; nine (14.1%) are known only outside Indo-Pacific regions; 16 (25%) are also known from Japan and Philippines; and only five (7.8%) are also known from the Arctic regions. Thus, the zoogeographical distribution of some of the polychaete species reported here can be found in other parts of the world. This confirms that the Polychaeta includes many species with a wide geographical range, even many cosmopolitan forms, and that this group on the whole is not significantly influenced by alterations of their habitat conditions (Wesenberg-Lund, 1949). The polychaete fauna here has a large overlap with that of Indo-Pacific waters (65.6%). In addition, a relatively high proportion of the Singapore species extends north to Japan (25%) as compared to about 39% for Hong Kong species. In summary, the polychaete fauna of Singapore appears to be essentially Indo-Pacific and should therefore belong to the tropical Indo-Malayan subregion of the Indo-west Pacific province (Wu *et al.*, 1980).

Much information with regards to the ecology as well as the systematics of polychaetes is, still lacking here. In most of the local references on benthic communities, the polychaetes are usually identified only to the familial and generic level. Another area of interest for the future is to study the changes in community structure for the purpose of monitoring pollution levels in some of the estuarine areas such as Sungei Buloh. In addition, certain polychaete species (eg. *Capitella capitata* Fabricius) may also be used as indicator organisms for pollution studies. The present checklist therefore serves as baseline data for further work on local polychaetes.

Acknowledgements.- The sampling programme was carried out under the ASEAN-Australian Marine Science Project: Living Coastal Resources which is funded by the Australian International Development Assistance Bureau, within the framework of the ASEAN-Australia Economic Cooperative Programme. The benthic surveys were carried out by the Reef Ecology Study Team of the Department of Zoology, National University of Singapore. In addition, the authors would like to thank Dr Peter Ng, Dr Marian H. Pettibone and Dr J. Hylleberg for their advice and useful comments on the manuscript.

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