

Checklist of the Shore Fishes of the Mentawai Islands, Nias Island and the Padang Region of West Sumatra

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Abstract

This paper presents a checklist of reef fishes of West Sumatra and adjacent provinces. The list includes 362 species of 143 genera and 46 families and contains seven new records and nine probable new species for Indonesia. It also uses information from sources only available in Bahasa Indonesia. The relative paucity of the fish fauna in West Sumatra seems to be related to the habitat destruction caused by illegal fishing with explosives or poisons such as cyanide.

Introduction

Indonesia, an archipelago nation with more than 17 000 islands and 81 000 km of coastline, extends from longitude 95°E to 141°E and latitude 5°N to 10°S (Fig. 1). The marine fauna and flora, like the terrestrial, is incredibly rich. For example, there are more than 70 genera of hard corals (Veron 1986) and 2 700 shore fishes (defined as those to depths of 200 m) (Randall, in press). The list of shore fishes is far from complete, as can be surmised from Randall and Kunzmann (in press, b) who found seven new records and nine probable new species of fishes in West Sumatra during five days of diving in April 1997.

The marine fauna of the southwestern coast of Sumatra represents a mixture of eastern Indian Ocean species and Pacific species. One might, therefore, expect it to have a richer fauna than the rest of Indonesia. This is not the case. The number of genera and species of corals is significantly lower in West Sumatra as compared to the eastern Indonesian provinces (Hoeksema and Kunzmann, in press). The same is true for shore fishes.

This checklist is designed to provide the list of species that have been noted on the reefs of western Sumatra by divers or snorkelers as well as the common fishes that appear in local markets. Our list includes 362 species of 143 genera and 46 families. Only a few small fish collections were made by us as divers. Large collections with ichthyocide would greatly increase the number of species, particularly cryptic species like eels (Anguilliformes) and cardinalfishes (Apogonidae), camouflaged species like scorpionfishes (Scorpaenidae), frogfishes (Antennariidae) and flatfishes (Pleuronectiformes), and small species such as gobies (Gobiidae), blennies (Blenniidae), and dragonets (Callionymidae). For example, our list has no frogfishes or dragonets, only two eels (both morays—Muraenidae), ten gobies (the largest marine family in the world, with an estimated 2 000 species) and five blennies.

The checklist covers three different subregions of West Sumatra (Fig. 2)—Padang Shelf, Mentawai Shelf and Nias Shelf, all part of the Greater Sunda region. Siberut Island, part of the Mentawai complex,

separated from the main island of Sumatra about 500 000 years ago, with a deep trench between them. Nias separated from Sumatra much later (Whitten et al. 1984).

Materials and Methods

Most of the fishes in the checklist (Table 1) have been observed directly by SCUBA divers. A small collection of fishes was made. Most of the fishes from these collections and from market specimens are now in the fish collection of the Fisheries Research Laboratory of Bung Hatta University (BHU) in Padang (Jonker and Johan, in press). The Laboratory is a joint venture between BHU and the Center for Tropical Marine Ecology, Bremen, Germany (ZMT). In addition to observations and the limited collection, photographs of fishes and video records of their behavior were made.

Fishes from the Mentawai Islands were collected mainly during two cruises of the research cutter *KM Raperi* of Bung Hatta University in December 1996 and April 1997 in Sarabua Bay (Fig. 2). The Nias fish

Fig. 1. Indonesia: Mentawai Islands, Nias Island and the Padang region in box.

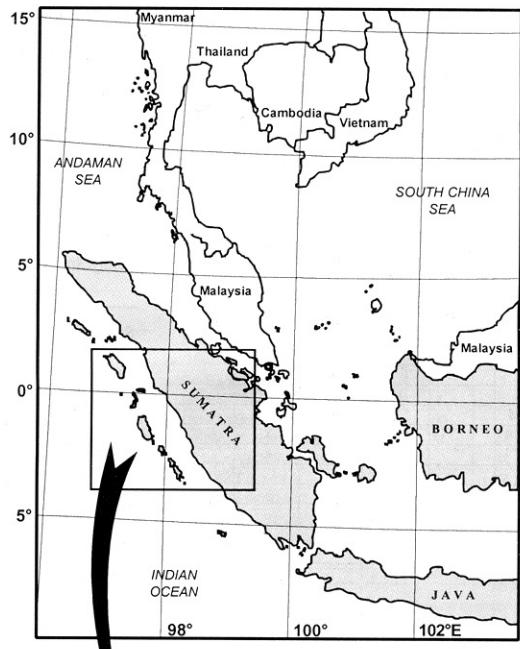


Fig. 2. Detail of West Sumatra where observations and collections were made.

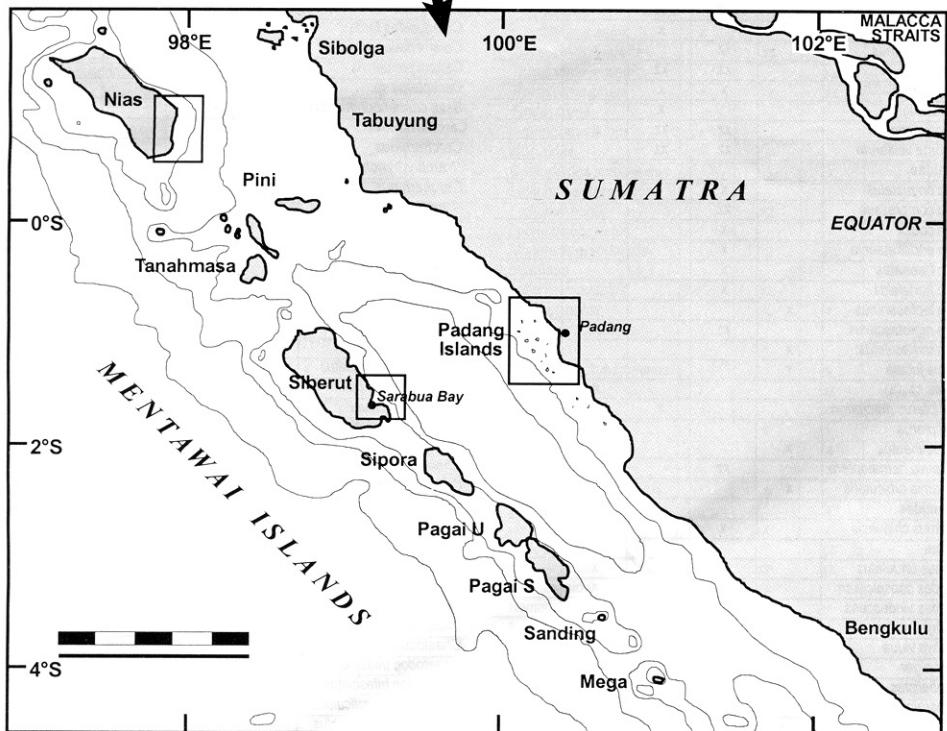


Table 1. Checklist of fishes in West Sumatra, in alphabetical order and grouped according to families. Locations (1) to (5) refer to different field expeditions; X = species present; Z = species present and confirmed by (1).

(1). J.E. Randall, A. Kunzmann, Fieldtrip No. 97/10 in logbook of KM Faperi, 22-24.4.97, Mentawai Islands, Siberut East: Teluk Sarabua and Panjang Saibi.

(2). I. Suprihanto, A. Kunzmann, Fieldtrip No. 96/29 in logbook of KM Faperi, 13-17.12.97, Mentawai Islands, Siberut East: Teluk Sarabua.

(3). Suharsono, M. Adrim, A. Budiyanto, A. Ibrahim, Yahmantoro, Z.A. Telambanua. 1995. *Wisata Bahari Pulau Nias, LIPI-LP3O*, Jakarta, 44 p. (published in Bahasa Indonesia).

(4). Yunaldi, A. Kunzmann, various fieldtrips in 1996 to Padang Islands (in logbooks of KM Faperi, KM Selar and KM Nautilus).

(5). A. Kunzmann. Fishes kept in aquaria for physiological experiments on behaviour, respiration and blood characteristics (Zimmermann and Kunzmann, in prep.)

Family/Species	Siberut (1)	Siberut (2)	Nias (3)	Padang (4)	Aquarium (5)
Acanthuridae					
<i>Acanthurus auranticavus</i>	X				
<i>Acanthurus dussumieri</i>			X		
<i>Acanthurus fowleri</i>	XZ				
<i>Acanthurus leucocheilus</i>	X		X		
<i>Acanthurus leucosternon</i>			X	X	
<i>Acanthurus lineatus</i>	XZ	XZ	X		
<i>Acanthurus mata</i>	XZ				
<i>Acanthurus maculiceps</i>				X	
<i>Acanthurus nigricans</i>			X		
<i>Acanthurus nigricauda</i>	X				
<i>Acanthurus nigrofascus</i>	XZ		X		
<i>Acanthurus nubilus</i> (?)	X				
<i>Acanthurus triostegus</i>			X		
<i>Acanthurus tristis</i>			XZ		
<i>Acanthurus xanthopterus</i>	X				
<i>Ctenochaetus binotatus</i>	X				
<i>Ctenochaetus striatus</i>	XZ	X			
<i>Ctenochaetus strigosus</i>		X			
<i>Naso hexacanthus</i>	XZ		X		
<i>Naso lituratus</i>	XZ	XZ			
<i>Naso unicornis</i>	X	X			
<i>Naso vianungi</i>		X			
<i>Zebrasoma scopas</i>	XZ	XZ	X		
<i>Zebrasoma veliferum</i>	XZ	XZ			
Apogonidae					
<i>Apogon angustatus</i>	X				
<i>Apogon compressus</i>	XZ				
<i>Apogon cookii</i>	X				
<i>Apogon endekataenia</i>					
<i>Apogon frenatus</i>	X				
<i>Apogon hartzfeldii</i>	X				
<i>Apogon leptacanthus</i>	X				
<i>Apogon nigrofasciatus</i>		XZ			
<i>Apogon trimaculatus</i>	X				
<i>Archamia fucata</i>	X				
<i>Archamia</i> sp. (a)			X		
<i>Cheilodipterus macrodon</i>		X			
<i>Cheilodipterus quinquelineatus</i>	X				
<i>Sphaeramia nematoptera</i>		XZ			
<i>Sphaeramia orbicularis</i>	X				
Aulostomidae					
<i>Aulostomus chinensis</i>	X				
Balistidae					
<i>Balistapus undulatus</i>	XZ	XZ	X		
<i>Balistoides conspicillum</i>		X	X		
<i>Balistoides viridescens</i>	XZ	XZ	X		
<i>Melichthys indicus</i>		XZ			
<i>Melichthys vidua</i>	XZ	XZ			
<i>Odonus niger</i>	XZ		X		
<i>Pseudobalistes flavimarginatus</i>		XZ			
<i>Rhinecanthus aculeatus</i>		X			
<i>Rhinecanthus verrucosus</i>		X			
<i>Sufflamen bursa</i>			X		

Family/Species	Siberut (1)	Siberut (2)	Nias (3)	Padang (4)	Aquarium (5)
<i>Sufflamen chrysopteru</i> s	X				X
Blenniidae					
<i>Aspidontus taeniatus</i>	X				
<i>Ecsenius bicolor</i>	X				
<i>Ecsenius</i> sp. (b)	X				
<i>Meiacanthus atrodorsalis</i>			XZ		
<i>Plagiotremus laudandus</i>	X				
Caesionidae					
<i>Caesio caerulea</i>				XZ	
<i>Caesio cuning</i>			XZ	XZ	X
<i>Caesio lunaris</i>			XZ	XZ	
<i>Caesio xanthonota</i>	X				
<i>Gymnocea</i> o <i>gymnoptera</i>					X
<i>Pterocaesio chrysozona</i>			XZ		
<i>Pterocaesio pisang</i>			XZ		
<i>Pterocaesio tile</i>			XZ		
<i>Pterocaesio trilineata</i>			XZ		X
Carangidae					
<i>Caranoides ferdau</i>			X		X
<i>Caranx melampygus</i>				XZ	
<i>Caranx papuensis</i>			X		
<i>Decapterus</i> sp.					X
<i>Selar crumenophthalmus</i>					X
Carcharhinidae					
<i>Carcharhinus amblyrhynchos</i>					X
<i>Carcharhinus melanopterus</i>			X		X
<i>Triaenodon obesus</i>					X
Centriscidae					
<i>Aeoliscus strigatus</i>			XZ		
Chaetodontidae					
<i>Chaetodon bernetti</i>			XZ	XZ	X
<i>Chaetodon citrinellus</i>				X	
<i>Chaetodon collare</i>				XZ	X
<i>Chaetodon decussatus</i>					X
<i>Chaetodon ephippium</i>			X		
<i>Chaetodon falcula</i>			XZ		X
<i>Chaetodon guttulatus</i>			XZ	X	
<i>Chaetodon lineolatus</i>				X	
<i>Chaetodon lunula</i>				X	X
<i>Chaetodon melanotus</i>				X	
<i>Chaetodon meyeri</i>				X	
<i>Chaetodon ocellatus</i>			XZ		
<i>Chaetodon ornatus</i>					X
<i>Chaetodon oxycephalus</i>			XZ		X
<i>Chaetodon rafflesii</i>			XZ	XZ	X
<i>Chaetodon semeion</i>					X
<i>Chaetodon speculum</i>			XZ	XZ	
<i>Chaetodon triangulum</i>				X	X
<i>Chaetodon trifascialis</i>			XZ	XZ	X
<i>Chaetodon trifasciatus</i>			XZ	XZ	X
<i>Chaetodon unimaculatus</i>				X	
<i>Chaetodon vagabundus</i>			XZ	XZ	X
<i>Forcipiger flavissimus</i>			XZ	XZ	
<i>Hemitaurichthys polylepis</i>				X	

Family/Species	Siberut (1)	Siberut (2)	Nias (3)	Padang (4)	Aquarium (5)	Family/Species	Siberut (1)	Siberut (2)	Nias (3)	Padang (4)	Aquarium (5)
<i>Hemitaenichthys zoster</i>			x			<i>Coris batuensis</i>	x				
<i>Heniochus acuminatus</i>		x	x	x		<i>Coris gaimard</i>	x				
<i>Heniochus monoceros</i>	x			x		<i>Epibulus insidiator</i>		x			
<i>Heniochus pleurotaenia</i>			xz	x		<i>Gomphosus caeruleus</i>		x			
<i>Heniochus singularis</i>	x					<i>Halichoeres argus</i>				x	
<i>Heniochus varius</i>		x				<i>Halichoeres chrysus</i>				x	
Cirrhitidae						<i>Halichoeres hartzfeldii</i>	x				
<i>Cirrhitichthys aprinus</i>	x					<i>Halichoeres hortulanus</i>		xz	xz	x	
<i>Cirrhitichthys falco</i>		xz				<i>Halichoeres leucurus</i>		x		x	
<i>Cirrhitichthys oxycephalus</i>	x					<i>Halichoeres marginatus</i>			xz	x	
<i>Paracirrhites forsteri</i>		xz	x			<i>Halichoeres melanurus</i>		x		x	
Dasyatidae						<i>Halichoeres nebulosus</i>	x				
<i>Taeniura lymna</i>		x				<i>Halichoeres nigrescens</i>		x			
Diodontidae						<i>Halichoeres purpurescens</i>		x			
<i>Diodon hystrix</i>				x		<i>Halichoeres scapularis</i>		x	x		
Ephippidae						<i>Halichoeres trimaculatus</i>		x			
<i>Platax boersii</i>	x					<i>Halichoeres vrolikii</i>		x		x	
<i>Platax orbicularis</i>	x					<i>Hemigymnus fasciatus</i>		xz	xz	x	
<i>Platax pinnatus</i>		xz				<i>Hemigymnus melapterus</i>			xz	x	
Ginglymostomatidae						<i>Labroides bicolor</i>			xz		
<i>Nebrius ferrugineus</i>				x		<i>Labroides dimidiatus</i>		xz	xz	x	
Gobiidae						<i>Labrichthys unilineatus</i>			xz		
<i>Amblyeleotris Downingi</i>		xz				<i>Macropharyngodon ornatulus</i>	x				
<i>Amblygobius hectori</i>	x					<i>Oxycheilinus celebicus</i>			xz		
<i>Amblygobius nocturnus</i>	x					<i>Oxycheilinus digrammus</i>	x				
<i>Amblygobius phalaena</i>	x					<i>Pseudodax moluccanus</i>	x				
<i>Asterropteryx semipunctatus</i>	x					<i>Pteragogus cyprinus</i>	x				
<i>Gnatholepis cauerensis</i>	x					<i>Stethojulis bandanensis</i>				x	
<i>Gobiodon okinawae</i>	x					<i>Stethojulis trilineata</i>				x	
<i>Istigobius decoratus</i>	x					<i>Thalassoma ambycephalum</i>	x				
<i>Trimma striata</i>	x					<i>Thalassoma hardwicke</i>		xz	xz	x	
<i>Valenciennea puellaris</i>	x					<i>Thalassoma janseni</i>			xz		
Haemulidae						<i>Thalassoma lunare</i>		xz	xz	x	
<i>Plectrohinchus chaetodonoides</i>		xz				<i>Thalassoma quinquevittatum</i>	x				
<i>Plectrohinchus lineatus</i>		xz		x		Lethrinidae					
Holocentridae						<i>Gnatodentex aurolineatus</i>			x		
<i>Myripristis adusta</i>	x					<i>Lethrinus erythropterus</i>	x				
<i>Myripristis hexagona</i>	x					<i>Lethrinus harak</i>		xz			
<i>Myripristis murdjan</i>		x		x		<i>Lethrinus obsoletus</i>			x		
<i>Myripristis violacea</i>	x	xz				<i>Monotaxis grandoculis</i>		xz	xz		
<i>Neoniphon argenteus</i>	x					Lutjanidae					
<i>Neoniphon sammara</i>	x					<i>Lutjanus biguttatus</i>		xz		x	
<i>Sargocentron caudimaculatum</i>		xz				<i>Lutjanus bohar</i>	x	x			
<i>Sargocentron cornutum</i>	x					<i>Lutjanus decussatus</i>			x		
<i>Sarcocentron diadema</i>			x			<i>Lutjanus fulviflamma/fulviflammus</i>			x	x	
<i>Sargocentron rubrum</i>		xz				<i>Lutjanus fulvus</i>	x		xz		
<i>Sargocentron tiereoides</i>	x					<i>Lutjanus gibbus</i>			xz		
Kyphosidae						<i>Lutjanus kasmira</i>		x	x		
<i>Kyphosus cinerascens</i>	x					<i>Lutjanus lunulatus</i>			x		
<i>Kyphosus vaigiensis</i>		x				<i>Lutjanus monostigma</i>	x		x		
Labridae						<i>Lutjanus quinquefasciatus</i>	x				
<i>Anampses melanurus</i>	x					<i>Lutjanus rivulatus</i>			x		
<i>Anampses meleagrides</i>	x					<i>Lutjanus vitta</i>	x	x			
<i>Anampses twistii</i>	x					<i>Macolor macularis</i>			xz		
<i>Bodianus mesothorax</i>	xz	xz	x			<i>Macolor niger</i>		xz	xz	x	
<i>Cheilinus bimaculatus</i>	x					Micromesidae					
<i>Cheilinus chlorourus</i>	x	xz				<i>Nemateleotris decora</i>	x				
<i>Cheilinus fasciatus</i>	xz	xz				<i>Nemateleotris magnifica</i>	x				
<i>Cheilinus oxycephalus</i>	x					Monacanthidae					
<i>Cheilinus trilobatus</i>		xz		x		<i>Aluterus scriptus</i>			x		
<i>Cheilinus undulatus</i>	x					<i>Cantherhines pardalis</i>	x				
<i>Choerodon anchorago</i>		xz				Monodactylidae					
<i>Cirrhitilabrus cyanopleura</i>				x		<i>Monodactylus argenteus</i>	x				
<i>Cirrhitilabrus exquisitus</i>	x					Mullidae					
<i>Cirrhitilabrus sp. (c)</i>	x					<i>Mulloidichthys flavolineatus</i>			x		

Family/Species	Siberut (1)	Siberut (2)	Nias (3)	Padang (4)	Aquarium (5)
<i>Parupeneus barberinus</i>		xz	xz	x	
<i>Parupeneus bifasciatus</i>			x		
<i>Parupeneus cyclostomus</i>			xz	x	
<i>Parupeneus indicus</i>		xz	xz		
<i>Parupeneus macronema</i>		xz		x	
<i>Upeneus fragula</i>	x				
Muraenidae					
<i>Gymnothorax javanicus</i>		xz			
<i>Gymnothorax pindae</i>	x				
Myliobatidae					
<i>Aetobatus narinari</i>			x		
Nemipteridae					
<i>Pentapodus caninus</i>	x				
<i>Scolopsis affinis</i>	x				
<i>Scolopsis bilineatus</i>		xz	x		
<i>Scolopsis ciliatus</i>		xz	x		
<i>Scolopsis lineatus</i>	x				
<i>Scolopsis marginatifer</i>		xz			
<i>Scolopsis trilineatus</i>			x		
Ostraciidae					
<i>Ostracion cubicus</i>		x			
<i>Ostracion solorensis</i>	x				
Pempheridae					
<i>Pempheris ovalensis</i>	x		x		
Pinguiipedidae					
<i>Parapercis hexophtalma</i>		xz			
Platycephalidae					
<i>Cymbacephalus beauforti</i>			x	x	
Plotosidae					
<i>Plotosus lineatus</i>		x			
Pomacanthidae					
<i>Apolemichthys trimaculatus</i>	xz	xz			
<i>Centropyge bispinosus</i>		x			
<i>Centropyge eibli</i>	xz	xz	x		
<i>Chaetodonoplus mesoleucus</i>	xz		x		
<i>Genicanthus melanospilos</i>	x				
<i>Pomacanthus annularis</i>	x	x			
<i>Pomacanthus imperator</i>	xz	x	x		
<i>Pomacanthus semicirculatus</i>	x	x			
<i>Pomacanthus sexstriatus</i>		x			
<i>Pygoplites diacanthus</i>	xz	x	x		
Pomacentridae					
<i>Abudefduf bengalensis</i>		x			
<i>Abudefduf saxatilis</i>		xz			
<i>Abudefduf septemfasciatus</i>		x			
<i>Abudefduf sexfasciatus</i>	xz				
<i>Abudefduf vaigiensis</i>			x		
<i>Acanthochromis polyacanthus</i>	xz		x		
<i>Amblyglyphydon aureus</i>		xz	x		
<i>Amblyglyphydon curacao</i>		x			
<i>Amblyglyphydon leucogaster</i>	x		x		
<i>Amphiprion clarkii</i>	xz	xz	x		
<i>Amphiprion ephippium</i>	x		x		
<i>Amphiprion ocellaris</i>	xz	xz	x		
<i>Amphiprion sandaracinos</i>		x	x		
<i>Cheiloprion labiatus</i>	x		x		
<i>Chromis alpha</i>	x				
<i>Chromis analis</i>			x		
<i>Chromis delta</i>	x				
<i>Chromis elerae</i>	xz				
<i>Chromis dimidiata</i>	x				
<i>Chromis lepidolepis</i>		x			
<i>Chromis marginatifer</i>	x	x	x		
<i>Chromis opercularis</i>		xz			

Family/Species	Siberut (1)	Siberut (2)	Nias (3)	Padang (4)	Aquarium (5)
<i>Chromis ternatensis</i>				xz	xz
<i>Chromis viridis</i>				x	
<i>Chromis weberi</i>				xz	
<i>Chrysiptera hemicyanea</i>				x	
<i>Chrysiptera talboti</i>				xz	
<i>Dascyllus aruanus</i>				xz	
<i>Dascyllus reticulatus</i>				x	
<i>Dascyllus trimaculatus</i>				xz	x
<i>Dischistodus perspicillatus</i>	x				
<i>Dischistodus prosopotaenia</i>					x
<i>Hemiglyphidodon plagiometopon</i>		x			
<i>Neoglyphidodon melas</i>				xz	
<i>Neopomacentrus azysron</i>					
<i>Neopomacentrus cyanomos</i>				x	
<i>Plectroglyphidodon dickii</i>				x	x
<i>Plectroglyphidodon lacrymatus</i>			xz		x
<i>Pomacentrus alexanderae</i>			x		
<i>Pomacentrus amboinensis</i>					x
<i>Pomacentrus allenii</i>				x	
<i>Pomacentrus bankanensis</i>		xz	xz	x	
<i>Pomacentrus chrysurus</i>		x		x	
<i>Pomacentrus lepidogenys</i>				xz	
<i>Pomacentrus melanochir</i>					x
<i>Pomacentrus moluccensis</i>		xz	xz	x	
<i>Pomacentrus pavo</i>		xz	xz		
<i>Pomacentrus philippinus</i>		xz	xz		
<i>Pomacentrus reidi</i>			xz		
<i>Pomacentrus simsianus</i>		x	xz		
<i>Pomacentrus tripunctatus</i>			x		
Scaridae					
<i>Bolbometopon muricatum</i>				x	
<i>Cetoscarus bicolor</i>		xz	xz		
<i>Chlorurus bleekeri</i>					x
<i>Chlorurus capistratoides</i>	x				
<i>Chlorurus sordidus</i>	x				
<i>Chlorurus strongylocephalus</i>	x				
<i>Chlorurus troschelii</i>	x				
<i>Scarus dimidiatus</i>				xz	
<i>Scarus ghobban</i>		xz	xz	x	
<i>Scarus niger</i>		xz	xz	x	
<i>Scarus prasiognathos</i>		xz			
<i>Scarus quoyi</i>				xz	
<i>Scarus rubroviolaceus</i>	x				
<i>Scarus sp. (d)</i>				x	
<i>Scarus tricolor</i>	x				
<i>Scarus viridifucatus</i>	x				
<i>Scarus xanthopleura</i>		x		x	
Scombridae					
<i>Katsuwonis pelamis</i>					x
<i>Rastrelliger kanagurta</i>					x
<i>Scomberomorus commersoni</i>					x
Scorpaenidae					
<i>Pterois antennata</i>		xz		x	x
<i>Pterois miles</i>		xz			x
<i>Scorpaenopsis diabolus</i>				x	x
<i>Scorpaenopsis oxycephala</i>	x			x	x
<i>Parascorpaena aurita</i>				x	x
<i>Family Synanceiidae verrucosa</i>		x		x	
Serranidae					
<i>Aethaloperca rogaia</i>	x	xz	xz		
<i>Anoperodon leuogrammicus</i>		xz	xz		

Family/Species	Siberut (1)	Siberut (2)	Nias (3)	Padang (4)	Aquarium (5)
<i>Belonoperca chabanaudi</i>	x				
<i>Cephalopholis argus</i>		xz	xz	x	
<i>Cephalopholis cyanostigma</i>	x				
<i>Cephalopholis leopardus</i>		xz		x	
<i>Cephalopholis micropion</i>	x				
<i>Cephalopholis miniata</i>		xz			
<i>Cephalopholis</i> sp. (e)				x	
<i>Cephalopholis urodelta</i>		xz			
<i>Diplopion bifasciatum</i>		xz			
<i>Epinephelus aequalis</i>		xz	x		
<i>Epinephelus fasciatus</i>		x			
<i>Epinephelus merra</i>		x			
<i>Epinephelus ongus</i>	x				
<i>Epinephelus polyphekadion</i>	x				
<i>Gracila albomarginata</i>		x	x		
<i>Nemaniathas carberryi</i>			x		
<i>Plectropomus maculatus</i>	x				
<i>Pseudanthias squamipinnis</i>	x				
<i>Variola albimarginata</i>	x				
<i>Variola louti</i>			xz		
Siganidae					
<i>Siganus canaliculatus</i>			x		

fauna was observed by Suharsono and colleagues from the Institute for Research and Development of Oceanography, Jakarta (LIPI-RDO) in 1995 and compiled into a checklist in Bahasa Indonesia (Suharsono et al. 1995). The fish fauna of the Padang region (Fig. 2) was observed on many research trips of the *KM Faperi* and *KM Nautilus* from 1995 to 1997. These included permanent line-intercept transects of the Coral Reef Assessment and Monitoring Project (CRAMP), as compiled for several bachelor's and master's theses (Elwind 1997; Molis 1997; Yunaldi 1997). The procedures of the fish transects are explained in detail in English et al. (1994).

Results and Discussion

The families, genera and species of fishes are presented in alphabetical order in Table 1. Species listed as sp. are believed to be undescribed. One of these, a wrasse of the genus *Cirrhilabrus*, has been described by Randall and Kunzmann (in press, a). Nine species of fishes represent new

records for Indonesia. These are also reported in detail by Randall and Kunzmann (in press, b). Our list includes 362 species of 143 genera and 46 families.

One of the most striking features of many of the dive localities in West Sumatra is the high degree of habitat destruction. Illegal fishing, with explosives or poisons, such as cyanide, has resulted in vast areas of coral rubble where once there were stands of *Acropora* and other corals, and dead coral colonies partly overgrown with algae. There are very few fully intact coral reefs, even in areas that are designated as marine parks or marine protected areas (Kunzmann and Efendi 1994, 1996). This partly explains the relative paucity of fish fauna. An open coral rubble bottom provides shelter only for small fishes. Our new species of *Cirrhilabrus* is one such fish that is commonly found on the rubble substrata.

Recent observations indicate that large-scale habitat destruction is also partly due to outbreaks of the crown-of-thorns starfish (*Acanthaster plancii*) and to red tide events, such as the

Family/Species	Siberut (1)	Siberut (2)	Nias (3)	Padang (4)	Aquarium (5)
<i>Siganus corallinus</i>		xz	xz	x	
<i>Siganus guttatus</i>		xz	xz	x	
<i>Siganus magnificus</i>		xz	xz		
<i>Siganus punctatus</i>			xz		
<i>Siganus virgatus</i>		xz	x	x	
<i>Siganus vulpinus</i>		xz		x	
Sphyraenidae					
<i>Sphyraena barracuda</i>	x				
<i>Sphyraena forsteri</i>				x	
<i>Sphyraena putnamae</i>				x	
Synanceiidae					
<i>Chorothoichthys ornatus</i>	x				
<i>Dunckerocampus dactyliophorus</i>		x			
<i>Syngnathoides biaculeatus</i>			x		
Synodontidae					
<i>Saurida gracilis</i>	x				
<i>Synodus variegatus</i>	x	xz			
Tetraodontidae					
<i>Arothron nigropunctatus</i>		xz	x		
<i>Canthigaster papua</i>	x	xz			
<i>Canthigaster valentini</i>		xz			
Zanclidae					
<i>Zanclus cornutus</i>		xz	xz	x	

bloom of *Gonyaulax spinifera* in the Padang region in December 1997 (Efendi, pers. comm.). The newspapers reported that a large number of fishes, especially plankton-feeding species, were killed as a result of this plankton bloom. Molis (1997) has pointed out the profound effect on the composition of coral reef fishes as a result of habitat destruction.

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