ИЗДАТЕЛЬСТВО
ДАЛЬНЕВОСТОЧНОГО
УНИВЕРСИТЕТА
THE COMMON CORALS OF VIETNAM
(field handbook)

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FOREWORD

Coral reefs represent the unique ecological phenomenon which is taking place through many hundred millions years of geological history of our planet. They keep their ecological stability, despite radical evolutionary changes of all terrestrial biota.

In human life reefs play the important role in connection with their protective role in preservation of sea coasts from storms and hurricanes, their highest biological efficiency, allowing to provide a high-grade albuminous food to men. They represent a unique show rich in colors and various forms. In many places of the world deposits of gold, diamonds, oil, gas, building materials are connected with them. Pages of history, romantic and full of dramatic nature, are connected with reefs. A great number of ships ended their days on coral reefs in Atlantic, Indian and Pacific Oceans. Labyrinths of the Great Barrier Reef protected Australia from intrusion of the Japanese fleet during World War II.

Today reefs are one of the most attractive objects of tourism all over the world. At the same time reefs suffer from fatal activity of men and their technical equipment. Jacques-Yves Cousteau was one of the first who paid attention to it. Preservation of reefs is a question of vital importance as reefs are built by organisms, to the greatest subject to pollution and overall influence of human activity: collection of coral colonies extent for building purposes, blasting operations fishes, uncontrolled commercial collection by
divers of beautiful objects forming a bulk steady skeleton of coral reefs.

It is not surprising, that coral polyps as the most attractive and bright objects of coral reef, draw attention of collectors and divers worldwide.

A book of Yuri Latypov, Doctor of Biol., well-known experts in corals taxonomy, is designed for the general public visiting reefs of Vietnam with the tourist and cognitive purposes. Mass forms of Vietnamese corals described in the book and supplied with good photos and short comments, will allow a diver at least to any extent to be guided in variety of their forms at a place. This book can give general idea about specific and generic variety of corals in Vietnam. I hope that it will be accepted with interest by mass readers who visit coral reefs of Vietnam.

The Honoured Ecologist of Russia, Professor Boris Preobrazhensky

ПРЕДИСЛОВИЕ

Коралловые рифы представляют уникальное экологическое явление, которое проходит через многие сотни миллионов лет геологической истории нашей планеты. Они сохраняют свою экологическую стабильность, несмотря на радикальные эволюционные изменения всей земной биоты.

В человеческой жизни рифы играют важную роль в связи с их защитной ролью в сохранении морских побережий от штормов и ураганов. Их самая высокая биологическая эффективность позволяет обеспечить населению высококачественное бежковое продовольствие. Они представляют уникальное зрелище, богатое различными цветами и формами. Во многих местах мировые запасы золота, алмазов, нефти, газа и строительных материалов связаны с ископаемыми рифами. С ними связаны романтические и полны драматического характера страницы истории. Большое количество судов закончило свои дни на коралловых рифах в Атлантике, Индийском и Тихом океанах. Лабиринты Большого барьерного рифа защищали Австралию от вторжения японского флота в течение Второй мировой войны.

Сегодня рифы — один из самых привлекательных объектов туризма во всем мире. В то же самое время рифы страдают от фатальной деятельности людей и их технического оборудования. Жак Ив Кусто был одним из первых, кто обратил внимание на это. Сохранение рифов —
INTRODUCTION

Efficiency of coastal waters of Vietnam (abundance of fish, shrimps, rock lobsters, trade molluscs and seaweeds) is significantly, if not basically, determined by the condition of coral reefs. Coral reefs, as well as damp tropical woods, represent the most productive natural ecosystem interesting and important for the mankind various points of view. Coral reefs form a complex inhabitancy giving to all numerous organisms an unusual variety of ecological niches. They serve as a natural barrier to destructive energy of waves, protecting a coastal line from erosion. Reef is actually a “living” barrier, destroyed basis which is constantly replaced with new growth of corals. Besides, coral reefs, through their own erosion, serve as the main source of sand, filling up critically destroyed coasts. It is especially important for many areas of the Vietnamese sandy coasts. Coral reefs form a basis for many fields of activity. Various kinds of productive leisure activity (scuba diving, skin diving, amateur recreational and commercial fishing, trips on boats with a glass bottom, etc.), and incomes from it directly depend on the condition of coral reefs. For all these governmental and scientific organizations of many countries consider coral reefs as an extremely important component of their economy.

Reef corals are one of the simplest multicellular life forms, but they provide some of the most distinctive and beautiful structures to be found in nature. By their growth and reproduction, corals form the building blocks of one of nature’s most beautiful and diverse environments, the coral reef.
In Vietnam’s shallow, near shore waters, reef corals occur in those areas where hard surfaces provide a base for their attachment and growth. The corals found in the Vietnam are part of the coral community that lives in the great Indo-Pacific region, which stretches across half the world from the east coast of Africa and the Red Sea to the west coast of South and Central America. In this region over a many hundreds species of coral occur, with the highest numbers located in the central area around the Philippines and the South China Sea. The Vietnam, lying in a southwest part of Pacific Ocean has about 400 species. In this area is already established more than 80 % of specific rich of Scleractinian of the Pacific Ocean, and the specific rich of Alcyonarians of the Vietnamese reefs are one of the greatest in Indo-Pacific.

Interest and concern in Vietnam’s marine environment is increasing rapidly among both residents of Vietnam and visitors. Corals and the reefs that they form by their growth are probably the most visually impressive and beautiful shallow water communities that a snorkeler or diver will encounter. The numbers of snorkelers and trained SCUBA divers frequenting Vietnam’s waters are increasing rapidly; and this trend will rise with both increasing tourism and a level of prosperity in the country that will promote learning of snorkeling and SCUBA diving by Vietnam.

This book describes and illustrates most of the common hard corals found in the waters of Vietnam and provides a resource for identifying corals to species. For those less concerned with biological terms, common English names are given, and a narrative for each type provides information about the usual habitat where the coral is found, typical features of this type of coral, and environmental information especially relevant for corals of Vietnam.

I hope that the information contained in this book will stimulate interest in Vietnam’s corals and coral reefs and will enable a basic understanding of the biological processes of these beautiful animals and of the geological structures that they form. In an era when coral reefs in much of the world are under continual and apparently mounting stress from both natural and man-related forces, hopefully this book will help to promote concern in studying and preserving this important resource for Vietnam’s future generations.

The reef builders – hard corals

What we commonly call corals includes a variety of types of organisms that biologists refer to as coelenterates or cnidarians. One of the main physical characteristics of this group is that they all have a single body cavity and opening, a coelenteron, which doubles both for the ingestion of food and for the release of digested wastes. Another characteristic is that corals and other coelenterates have stinging cells, or nematocysts, that are normally carried within special cells on the animal’s surface.

Animals known commonly as hard or stony corals are primarily responsible for the construction of modern coral reefs in that they initiate reef construction, provide the basic framework of reefs, and shelter for numerous other organisms. The breakdown of their skeletal material after death provides material for redistribution and consolidation into the reef framework. Hard corals are one of lateral branches of coelenterates belonging to the Order Scleractinia. The
reef-building corals are colonies of replicated polyps, each with a structure similar to that of an anemone, but with two important additions; they build a hard skeleton of calcium carbonate and their tissues contain single celled symbiotic plants called zooxanthellae.

Reef-building corals are primitive marine animals with a simple body structure. At the top of each individual coral, called a polyp, is a crown of tentacles (Fig. 1) arranged in groups of six, which wave in the water and act as a food trap. Tentacles give coral the flower-like appearance which confused naturalists until the eighteenth century and still makes some divers and swimmers believe corals are plants. Only if you see these innocent-looking but deadly carnivores in the act of catching and paralyzing live prey is their animal nature obvious.

Extended polyps have an anemone-like appearance. In the middle of the tentacles is a flat oral disc and in its centre the mouth (Fig. 2), a slit-like aperture which is the animal’s only opening to the environment. Beneath it lays a narrow channel, the stomodeum, which in turn leads to a single large body cavity, the coelenteron’s. Fleshy plates (mesenteries) radiate in from the wall of the body column towards the central axis of the polyp. Within the body cavity, digestion is accomplished on the surfaces of specialized filaments or mesenteries, which secrete enzymes that quickly reduce ingested prey to its components. Most corals are, therefore, potentially efficient predators, although many types seem to have developed other means of meeting their energy requirements.
The common characteristic of this group is the secretion of a basal skeleton of calcium carbonate as the mineral aragonite. The skeleton of the polyp is called a corallite. It has a basal plate, from which arise partitions called septa. The septa alternate in position with the fleshy mesenteries. From the centre of the plate a structure called the columnella may extend up into the corallite. The skeletal walls support the polyp, and they are variously formed by the outer edges of the septa or by extensions between the septa. New polyps are budded off by division of a mature polyp or separately from between the polyps. In some corals, the polyps move upwards in the corallites and lay down new basal plates as the colony matures: the old basal plates are known as dissepiments. The skeletal material between the corallites is called the coenosteum, and this may bear outside extensions of the septa called costae. There are four basic forms of growth of colonies: branching colonies, any growth-form where branches are formed (Fig. 3a); flat tables colonies, which are usually thin and finely structured (Fig. 3b); massive colonies, which are broadly similar in all dimensions (have a small surface area to volume ratio) and are mostly solid beneath the surface (Fig. 3c); encrusting colonies.
**colonies**, which adhere closely, and are attached to, the substrate (Fig. 3d).

In most corals, there is a clear distinction between what is an individual and what is a colony. In some corals there may not be a clear distinction between what is an individual and what is a row of individuals. This is best seen in Families Faviidae and Mussidae, where there is a continual gradation between colonies composed of distinct polyps (corallites) to colonies where individuals are recognisable only by the existence of mouths and/or clymella centres, to colonies where there is no sign of individuality (Fig. 4).

**Occurrence and abundance of corals in Vietnam**

Corals of Vietnam are component of a great group of marine animals named the Indo-Pacific fauna that extends across the Pacific and Indian Oceans from east coast of Africa to the western coast Americas. Many of the same types of corals which occur in Vietnam also, live so far away as Hawaii, the Great Barrier Reef of Australia, Seychelles and Red Sea. This region, therefore, represents the greatest continuous biological community on the Earth. However, the species composition of a coral reef will not be exactly the same from one area of Indo-Pacific region to another. Rather, the most common species to be found in one area can be rare or even absent in another, depending on ecological conditions which prevail and as far area is from the zone of maximal abundance of that species. The maximal numbers of species of this great Indo-Pacific distribution of animals occur in the warm tropical seas surrounding Indonesia and Philippines, and decrease in all directions from this central point. The coral fauna of Vietnam is included organically into this center of the maximal variety, and has not less than 75 % of common species with the majority areas of the tropical Indian and Pacific Oceans. From about 700 coral species identified for the Indo-Pacific region more than 360 reef forming species inhabit in the Vietnamese waters. Of these, some 56 species are new records for Vietnam. For most of these species, their prior distributions were restricted to the Indo-west Pacific centre of diversity of the Philippines-Indonesia. Twelve new species before unknown for a science are found and described. Corals are best identified using features of the dried skeleton (Fig. 5).

However, for most of the common genera and species, it is quite easy to become familiar with the characteristics of living colonies. It is these features (rather than those used for taxonomic separation) which are indicated in the account of the species that is given below. The families of the Scleractinia are set out below, together with the genera and the most widespread species occurring in Vietnam.

**Descriptions of Vietnam corals and their habitats**

**A note about names**

The common English names of corals and other organisms usually are based on an obvious physical characteristic which might be similar to another object with which the layman
may already be familiar, e.g. Cauliflower Coral, which superficially looks like a cauliflower. However such familiar names may not adequately define a given species, because other closely related species may share such a characteristic. For naming organisms more precisely biologists use something called the binomial system first used by the great biologist Carl von Linne (Linneaus), who developed the systematic naming and description of animals and plants in the eighteenth century. This system of naming involves an italicized or underlined genus name followed by a species name for every organism, e.g. *Pocillopora damicornis*. Such names may be changed if a subsequent biologist decides that the species should be grouped with another previously described species, or if he decides that a specimen is sufficiently different to warrant identifying it as a new and separate species. These rather confusing issues are only resolved by specialists in the field, but the intention is that any identified and described species should be genetically separate and distinct from all others.

Most books which are directed to non-specialists use only common or descriptive names, or scientific identifications go only to the genus level. In order to educate and provide more of the available information available for a coral type, this book will use both common English names and identifications to species.

Accordingly, the complete classification of the hard corals is as follow:

<table>
<thead>
<tr>
<th>Phylum</th>
<th>Cnidaria</th>
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<tbody>
<tr>
<td>Subphylum</td>
<td>Anthozoa</td>
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<tr>
<td>Class</td>
<td>Zoantharia</td>
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<tr>
<td>Order</td>
<td>Scleractinia</td>
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<tr>
<td>Family</td>
<td>Faviidae</td>
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<tr>
<td>Genus</td>
<td>Favia</td>
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<tr>
<td>Species</td>
<td>Speciosa</td>
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ВВЕДЕНИЕ

Продуктивность прибрежных вод Вьетнама (изобилие рыбы, креветок, лангустов, моллюсков и морских водорослей) в значительной мере, если не в основной, определяется состоянием коралловых рифов. Коралловые рифы, так же как влажный тропический лес, представляют самую производительную естественную экосистему, интересную и важную для населения с различных точек зрения. Коралловые рифы формируют сложное местообитание, дающее всем многочисленным организмам необычное разнообразие экологических ниш. Они служат естественным барьером для разрушающей энергии волн, защищая прибрежную линию от эрозии. Риф — фактически “живущий” барьер, разрушенное основание которого постоянно заменяется новым ростом кораллов. Кроме того, коралловые рифы, через их собственную эрозию, служат главным источником песка, заполняя критически разрушенные побережья. Это особенно важно для многих районов вьетнамских песчаных побережий. Коралловые рифы формируют основу для многих областей деятельности. Различные виды действия досуга (подводное плавание, скиддайвинг, любительский рекреационный и коммерческий лов рыбы, поездка на лодках со стеклянным дном и т. д.) и доходы от этого непосредственно зависят от благоприятных условий на коралловых рифах. Правительственные и научные организации многих стран рассматривают коралловые рифы как чрезвычайно важный компонент их экономики.

Рифостроющие кораллы — одна из самых простых многоклеточных форм жизни, но они формируют самую из наиболее замечательных и не похожих ни на что структур, которые могут быть найдены в природе. Своим ростом и воспроизводством кораллы формируют удивительные сооружения — коралловые рифы — одни из самых красивых и богатых по разнообразию природных творений.

На вьетнамском мелководье, вдоль побережья, коралловые рифы формируются в тех районах, где твердые грунты обеспечивают основу для их прикрепления и роста. Кораллы, обитающие во Вьетнаме, являются частью сообщества кораллов, существующего в огромной Индо-пацификской области, которая простирается от восточного побережья Африки и Красного моря к западному побережью Южной и Центральной Америки. В этой области известны многие сотни видов кораллов. Самое высокое число видов установлено в центральной части Индо-пацификской области вокруг Филиппин и Индонезии в Южно-Китайском море. Вьетнам, лежащий в юго-западной части Тихого океана, имеет около 400 видов кораллов. В этом районе также установлено более 80% видового богатства рифообразующих кораллов Тихого океана, а видовое разнообразие мягкого кораллов аплионарий вьетнамских рифов — одно из наиболее богатых в Индо-пацифике.

Интерес к вьетнамской морской окружающей среде увеличивается быстро и среди местного населения Вьетнама, и среди иностранных посетителей. Кораллы и рифы,
Строители рифа – известковые кораллы

Что мы обычно называем кораллами, которые включают разнообразные типы организмов, а биологи относят к цеолентатам (кишечнополостным) или кицдариям (стрекающим)? Одна из главных физических характеристик этой группы – то, что они все имеют единственную полость цеолторон и отверстие, которое используется и для приема пищи, и для выпуска переваренных отходов. Другая характеристика – то, что кораллы и другие цеолентаты имеют стрекательные клетки, или нематоцисты, которые обычно располагаются в пределах специальных ячеек на поверхности животного.

Животные, известные обычно как известковые или твердые кораллы (hard corals), прежде всего, ответственны за строительство современных коралловых рифов. Своими захоронениями и консолидацией в каркас рифа. Известковые кораллы – одна из боковых ветвей кишечнополостных, принадлежащая к отряду *Scleractinia*. Строющие риф кораллы – колонии самовоспроизводящихся полипов, каждый со структурой, подобной актинии, но с двумя важными дополнениями: они формируют твердый скелет из карбоната кальция и их ткани содержат простые симбиотические микроводоросли *zookʽsantelʹy*. Рифостроющие кораллы – примитивные морские животные с простым строением тела. Наверху каждого индивидуального коралла, названного полипом, распо-
ложена корона щупалец (рис. 1), аранжированных в группах кратно шести. Они шевелятся в воде, ловя подходящую пищу. Щупальца придают кораллу сходство с цветком, которое смущало натуралистов до восемнадцатого столетия и некоторых современных плюцовых, полагающих, что кораллы – растения. Только если вы видите эти невинно-выглядящие, но смертельные плодоносящие животные в процессе ловли и поражения параличом живой добычи, их животная природа становится очевидной.

Выступающие полипы устроены подобно анемонам. В середине щупалец находится плоский ротовой диск и в его центре рот (рис. 2), подобная разрезу апертура, которая является единственным открытым отверстием животного к окружающей среде. Ниже этого следует узкий канал, стомодеум, который в свою очередь ведет к простой большой полости целенторону. Мястивые пластинки (мезентерии) отходят от стенки тела к центральной оси полипа. В пределах целенторона переваривание обеспечивается на поверхностях специализированных нитей мезентерий, ферменты которых быстро перерабатывают компоненты пролежневой добычи. Поэтому большинство кораллов потенциально эффективные хищники, хотя многие из них, кажется, развивают другие средства добычи необходимой им энергии.

Общая характеристика этой группы – формирование опорного скелета карбоната кальция из минерального арагонита. Скелет полипа называется кораллитом. Он имеет базальную пластину, из которой строятся вертикальные радиально ориентированные перегородки (септы).
Септы чередуются в положении соответствующем мезен-териум. Группы септ, построенные в одно время, назы-ваются циклом. Группы септ одинакового размера объе-диняются в порядки. К центру кораллита может прости-раться структура названная колумеллой (столбик). Ске-летная стенка поддерживает полип. Она может быть сформирована внешними гранями септ или расширениями между септами. Новые полипы отпочковываются разде-лением зрелого материнского полипа или между по-lipами. В некоторых кораллах полипы двигаются вверх по кораллиту и устанавливают новые базальные пластич-ны, известные как диссепменты. Скелетный материал между кораллами называют ценостеум, и он может иметь внешние продления септ, названных костами.

Рис. 4. Типы колоний и формы кораллотов: а – ветвистые колонии с кораллитами с собственными стенками, осевые (А) и радиальные (R) кораллиты, б – фацилоидные колонии также с изолированными кораллитами с их собственными длинными и трубчатыми стенками, в – плокоидные колонии с изолированными кораллитами с их собственными стенками и общим ценостеумом, д – цероидные колонии с изолированными сливающимися стенками.

Рис. 3. Основные формы роста кораллов.

Имеются четыре основные формы роста колоний: вет-вистые (рис. 3а); плоские таблитчатые, которые явля-ются обычно тонкими (рис. 3б); массивные холмовид-ные (рис. 3с); инкрустирующие колонии, которые близко и плотно прирастают к субстрату (рис. 3д).
В большинстве кораллов имеется ясное различие между тем, что является индивидуумом и что такое — колония. В некоторых кораллах такого различия может не быть. Это лучше всего замечено в семействах Faviidae и Mussidae, где есть непрерывная градация между колониями, составленными из отчетливых полипов в колониях и в то же время индивидуумы распознаются только наличием ротов и/или колумелл в центре кораллитов (рис. 4).

Распространение и изобилие кораллов во Вьетнаме

Кораллы Вьетнама являются составляющими большой группы морских животных, названных фауной Индояпониа, которая населяет Тихий и Индийский океаны от восточного побережья Африки к западному побережью Америки. Многие из тех же самых видов кораллов, которые известны во Вьетнаме, найдены на рифах Гавайских островов, Большого барьерного рифа Австралии, Сейшельских островов и Красного моря.

Эта область представляет самое большое непрерывное биологическое сообщество на Земле. Однако видовой состав кораллового рифа не будет абсолютно одинаков от одного региона Индояпониа-фактической области к другому. Скорее, самые обширные виды, которые будут найдены в одном регионе, могут быть редкими или даже отсутствующими в другом, в зависимости от преобладающих экологических условий и удаленности данного региона от зоны максимального изобилия видового разнообразия. Максимальное число видов Индояпониа-фактического распределения животных находится в теплых тропических морях, окружающих Индонезию и Филиппины, и оно уменьшается во всех направлениях от этого центрального пункта. Фауна кораллов Вьетнама органически входит в этот центр максимального разнообразия, и имеет не меньше чем 75 % общих видов с большинством районов тропической зоны Индийского и Тихого океанов.

Около 700 видов кораллов идентифицированы для всей Индояпониа-фактической области. Более 360 видов из них обитают во вьетнамских водах, из которых 56 видов — ранее не были известны во Вьетнаме. Для большинства этих видов данные о их распространении ограничивались западной частью Индояпониа-фактического центра разнообразия.

Двенадцать новых видов прежде были неизвестны для науки. Кораллы лучше всего определять, используя особенности промытого и высушенного скелета (рис. 5). Однако для большинства массовых родов и видов весьма доступно познакомиться с характеристиками живущих колоний. Именно эти особенности (а не используемые специалистами для таксономического подразделения) обозначены в списке описываемых видов. Ниже приведены описания кораллов семейства Scleractinia, включающие в себя роды и широко распространенные виды, встречающиеся во Вьетнаме.
ком, например, Cauliflower Coral (Коралл Цветной капусты), который поверхностно напоминает цветную капусту. Однако такие знакомые названия могут не соответствовать образом определить данную разновидность, потому что другие близко родственные разновидности могут иметь такую же характеристику. Для того чтобы называть организации более точно, биологами используется дву-членная система, впервые предложенная величайшим биологом Карлом фон Линнеем, который разработал систематическое обозначение и описание животных и рас- тений в восемнадцатом столетии. Эта система предполагает для каждого организма выделение латинского на- звания рода, сопровождаемое названием вида, т. е. Pocillopora damicornis. Такие названия могут быть изменены, если последующий биолог решает, что данные виды должны быть сгруппированы с другим, предварительно описанным видом, или если он решает, что экземпляр достаточно отличается, чтобы гарантировать идентификацию его как новый и самостоятельный вид.

Большинство книг, которые адресованы неспециалистам, используют только общие или наглядные названия, или научные идентификации приводятся только до уровня рода. Для облегчения определений и обеспечения более доступной информации, полезной для вида коралла, в этой книге будут использоваться и общие английскиские названия и идентификация видов.

Описания вьетнамских кораллов и их габитуса

Замечание о названиях

Общие английские названия кораллов и других организ- зов обычно базируются на очевидной физической характеристике, которая могла бы быть подобна другому объекту, с которым непрофессионал может уже быть зна-
This genus have many species and is the dominant coral on most reefs. Four kinds growth of colonies form are particular typical: branching, bushy, plate-like, and low with encrusting form.

ORDER SCLERACTINIA
Family Acroporidae
Common name Staghorn coral
Genus Acropora
Genus Astreopora
Genus Montipora

This genus have many species and is the dominant coral on most reefs. Four kinds growth of colonies form are particular typical: branching, bushy, plate-like, and low with encrusting form.

ORDER SCLERACTINIA
Family Acroporidae
Common name Staghorn coral
Genus Acropora
Genus Astreopora
Genus Montipora
**Acropora acuminata (Verrill, 1864)**

**Characters:** Caespitose-corymbose colonies are composed of fused horizontal branches. Their ends curve upwards and taper to a point. Radial corallites on horizontal branches are mostly immersed. Uncommon, occurs on upper or lower reef slopes.

**Colour:** Usually brown.

**Distribution:** Recorded in Vietnam on reefs of Baitylong Archipelago, Con Son, An Thoi, Cham Islands and Khanh Hoa province, depth 2-6 m. Widely distributed in the tropical Indo-Pacific.

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**Acropora brueggemanni (Brook, 1893)**

**Characters:** Colonies are irregularly branched. Branches tips are rounded with one or 2-3 axial corallites which are almost immersed. Radial corallites are appressed and rounded. Not common, occurs at shallows.

**Colour:** Light brown with pale corallites.

**Distribution:** Recorded in Vietnam on reefs of islands Dao Chao, Cham, Con Son, Tho Chu, depth 2-6 m. Widely distributed in Indo-Pacific.

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1 Hereinafter there is only Indo-Pacific tropical part.

В дальнейшем имеется в виду только тропическая часть Индийского и Тихого океанов.
**Acropora cytherea (Dana, 1846)**

**Characters:** Colonies are plate-like or wide flat tables, which are usually thin and finely structured. May become thick in turbulent environments. Fine horizontal branches are usually highly anastomising. Radial corallites are tubular and appressed. Common on upper reef slopes and in lagoons.

**Colour:** Uniform pale cream or brown, rarely blue.

**Distribution:** In Vietnam occurs from Gulf of Tonkin up to Gulf of Siam, depth 1-18 m. Widely distributed in Indo-Pacific.

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**Acropora dendrum (Bassett-Smith, 1890)**

**Characters:** Colonies are usually 0.5-1 metre across and are corymbose plates with widely spaced, tapering branchlets. Axial corallites are small. Radial corallites are immersed or nearly so, giving branchlets a smooth appearance.

**Colour:** Pale brown or cream.

**Distribution:** In Vietnam recorded in Nha Trang and Van Phong Bays, depth 3-5 m. Distributed rare in South-West Pacific.

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Acropora cytherea (Dana, 1846)

Characters: Colonies are plate-like or wide flat tables, which are usually thin and finely structured. May become thick in turbulent environments. Fine horizontal branches are usually highly anastomising. Radial corallites are tubular and appressed. Common on upper reef slopes and in lagoons.

Colour: Uniform pale cream or brown, rarely blue.

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Acropora dendrum (Bassett-Smith, 1890)

Characters: Colonies are usually 0.5-1 metre across and are corymbose plates with widely spaced, tapering branchlets. Axial corallites are small. Radial corallites are immersed or nearly so, giving branchlets a smooth appearance.

Colour: Pale brown or cream.

Distribution: In Vietnam recorded in Nha Trang and Van Phong Bays, depth 3-5 m. Distributed rare in South-West Pacific.
Acropora florida (Dana, 1864)

Characters: Colonies are composed of thick upright or prostrate branches covered with short vertical sub-branches. Horizontal branches may be highly fused. Axial corallites are small. Radial corallites are either immersed or uniformly tubular. Common in different reef zones, especially on reef slopes.

Colour: Brown, occasionally bright green.

Distribution: In Vietnam recorded everywhere, excluding inner part of the Gulf of Siam, depth 1-20 m. Widely distributed in Indo-Pacific.

Acropora digitifera (Dana, 1846)

Characters: Colonies are digitate and commonly form attached plates, which may rich up to one meter across. Branches are small, cylindrical or tapered, and sub-branches are sometimes formed. Axial corallites are small. Radial corallites are tubular, uniform in size down branch sides. Very common at shallows.

Colour: Brown, cream or yellow.

Distribution: In Vietnam recorded everywhere, excluding inner part of the Gulf of Siam, depth from littoral to 15 m. Widely distributed in Indo-Pacific.
**Acropora formosa (Dana, 1846)**

**Characters:** Colonies are arborescent, with cylindrical branches. They usually form thickets and may form single species settlements over 10 meters across. Axial corallites are excreted, radial corallites are tubular. Common and may be a dominant species on reef slopes and in lagoons.

**Colour:** Usually brown with pale branch ends.

**Distribution:** Known in Vietnam everywhere, depth 1-20 m. Widely distributed in Indo-Pacific.

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**Acropora gemmifera (Brook, 1892)**

**Characters:** Colonies are plate-like or digitate with wide base. Branches are thick, conical, tapering to a small axial corallite. The larger size tubular corallites usually in rows and increase in length towards branch bases. Common on reefs, presumably at upper reef slopes.

**Colour:** Brown, blue or green.

**Distribution:** Recorded on Vietnam reefs in all regions, excluding Nam Su Islands, depth 1-15 m. Widely distributed in tropical Indo-Pacific.
Acropora latistella (Brook, 1891)

Characters: Colonies form corymbose plates or clumps. Branchlets are thin and delicate, straight or uniformly curved. Axial corallites are usually distinctive. Radial corallites have a rosette arrangement, are usually in rows and are appressed with rounded openings.

Colour: Uniform pale cream, grey or brown.

Distribution: Known in Vietnam on reefs of Re Island and Khanh Hoa province, depth 3-10 m. Widely distributed in tropical Indo-Pacific zone.

Acropora longicyathus (Milne Edwards and Haime, 1860)

Characters: Colonies are subarborescent, with bottle-brush branches sometimes form clumps. Radial corallites are appressed. All corallites have thick walls with rounded openings.

Colour: Usually uniform pale to dark brown.

Distribution: Known in Vietnam on reefs of Re, Con Son Islands and Khanh Hoa province, dept 2-20 m. Common in tropical Indo-Pacific zone.
**Acropora millepora (Ehrenberg, 1834)**

**Characters:** Colonies are corymbose plates with short uniform branches. Axial corallites are tubular in shape. Radial corallites are closely compacted and all the same size. Common in all reef zones, may form monospecies settlements.

**Colour:** Commonly of different red-brown or green shades.

**Distribution:** Known in Vietnam everywhere, depth from littoral to 20 m. Widely distributed in tropical Indo-Pacific zone.

**Acropora monticulosa (Bruggemann, 1879)**

**Characters:** Large corymbose plate-like colonies with short conical or pyramidal branches tapering to a small axial corallite. Larger radial corallites are tubular with nariaform openings and uniform in size, usually arranged in rows. Occurs at upper reef slopes.

**Colour:** Green or cream, with branch tips of contrasting colours.

**Distribution:** Not common in Vietnam, recorded on reefs of Re, Con Son and Khanh Hoa province Islands, depth 1-10 m. Distributed in tropical Indo-Pacific.

**Acropora monticulosa (Bruggemann, 1879)**

**Characters:** Colonies are corymbose plate-like colonies with short uniform branches. Axial corallites are tubular in shape. Radial corallites are closely compacted and all the same size. Common in all reef zones, may form monospecies settlements.

**Colour:** Commonly of different red-brown or green shades.

**Distribution:** Not common in Vietnam, recorded on reefs of Re, Con Son and Khanh Hoa province Islands, depth 1-10 m. Distributed in tropical Indo-Pacific.
**Acropora nobilis (Dana, 1846)**

**Characters:** Arborescent colonies with large anastomosing cylindrical branches. May form single species settlements more than several metres across. Radial corallites are rasp-like. Common, occurs at sandy lagoons and reef slope.

**Colour:** Cream, brown, yellow and green.

**Distribution:** In Vietnam known everywhere, depth 1-25 m. Widely distributed in tropical Indo-Pacific.

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**Acropora palifera (Lamarck, 1816)**

**Characters:** Colonies are encrusting plates with vertical thick ridges, columns or branches without axial corallites. Corallites are rounded and exsert. Occurs in all reef zones. Abundant in lagoons and on reef slopes.

**Colour:** Pale cream or brown.

**Distribution:** Occurs in Vietnam from Da Nang Cape to Gulf of Siam, depth 1-35 m. Widely distributed in the tropical Indo-Pacific.

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Древовидные колонии с большими анастомизирующими цилиндрическими ветвями. Могут формироваться моновидовые поселения до нескольких метров в поперечнике. Радиальные кораллиты подобны терке. Обычны, распространены в песчаных лагунах и на склонах рифа.

Кремовые, коричневые, желтые или зеленые.

Широко распространены в Индо-Тихом океане.
**Acropora valida (Dana, 1846)**

**Characters:** Colonies co-espito-corymbose, may be compact bushes to plates with margin attachment to substrate. Axial corallites are slightly conical, exsert up to 2 mm. Radial corallites sub-immersed to exsert, tubular and appressed, their walls costate. Rare, recorded mostly at reef slopes.

**Colour:** Cream, yellow-brown.

**Distribution:** In Vietnam recorded on the reefs of Khanh Hoa province, Re and Nam Su Islands, depth 3-10 m. Widely distributed in Indo-Pacific including Red Sea reefs.

*Acropora robusta (Dana, 1846)*

**Characters:** Colonies irregular in shape with encrusting bases and thick conical branches. Radial corallites are of mixed sizes and shapes but are generally rasp-like. Common, occurs mostly on upper reef slope.

**Colour:** Bright green, brown or cream.

**Distribution:** Known in Vietnam everywhere, including Con Son and Truong Sa Islands, depth 1-5 m. Common in the central Indo-Pacific.
This coral usually occurs as rounded colonies from 10 cm up to 1.5 meter across. Its are characterized by protuberant corallites up to 3.5 mm in calices.

Эти кораллы обычно представлены массивными округлыми колониями от 0.1 до 1.5 метров в поперечнике с выпуклыми кораллитами до 3.5 мм в чашке.

**Family Acroporidae • Genus Acropora**

**Common name**  
**Porous Star coral**

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**Fig. 6.** A monospecific settlement of *Acropora aspera* on one of the Vietnamese reef

Моновидовое поселение *Acropora aspera* на одном из вьетнамских рифов

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**Family Acroporidae • Genus Astreopora**

**Astreopora myriophthalma (Lamarck, 1816)**

**Characters:** Colonies are massive hemispherical or flattened, with an even surface. Corallites are exert, evenly spaced and conical. Calices cylindrical, up to 2.5 mm in diameter. The coenosteum covered by spinules, which may be aligned in rows on corallite walls. Common at upper reef slopes.

**Colour:** Cream, brownish or yellow.

**Distribution:** In Vietnam recorded at most reefs, excluding Nam Su Island, depth 1.5-30 m. Widely distributed in Indo-Pacific.

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This coral is usually found growing as leafy plates or as an irregular encrustation. There are also branching species. Montipora has a rough surface due to the small corallites. The size of colonies may be more than 2 meters.

**Montipora**

**Common name** Leafcoral

Эти кораллы обычно формируют тонколиственные пластины или неровные корки (инкрустации). Они могут иметь ветвистые разновидности. Montipora имеет шершавую поверхность из-за маленьких, покрытых многочисленными шипиками кораллитов. Колонии могут быть больше 2 метров в поперечнике.

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**Genus Montipora**

**Common name** Leafcoral
Montipora aquituberculata Bernard, 1897

**Characters:** Colonies are encrusting or composed of thin unifacial laminae often arranged in oblique overlapping whorls and sometimes forming tubes. Common in different reef zones.

**Colour:** Cream or brown.

**Distribution:** In Vietnam common on reefs of Tonkin Gulf, Baikan, Tho Chu Islands and Khanh Hoa province, dept 0.5-15 m. Widely distributed in Indo-Pacific tropical zone.

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Montipora crassituberculata Bernard, 1897

**Characters:** Colonies are encrusting plates or form flat tiers. Corallites are immersed or exsert, the latter being conical with thick thecae. Thecal and coenosteum papillae are both thick. Common at lagoons and reef slopes, may form large colonies.

**Colour:** Usually uniform brown.

**Distribution:** In Vietnam recorded on the reefs of Khanh Hoa province and Islands Cham, Re, Thu, dept 1-20 m. Distributed in Indo-Pacific.
**Montipora digitata (Dana, 1846)**

**Characters:** Colonies are digitate or arborescent with anastomosing upright branches. Corallites are immersed and small, reticulum simple. Common at shallows, may form monospecies settlements.

**Colour:** Pale or brown.

**Distribution:** In Vietnam recorded on reefs of the Bay Tu Long Archipelago, Gulf of Siam and Khanh Hoa province, depth from littoral to 15 m. Widely distributed in Indo-Pacific.

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**Montipora hispida (Dana, 1846)**

**Characters:** Colonies may be submassive, laminar, columnar or digitate or various combinations of these growth-forms. Corallites are both immersed and exsert, the latter having prominent thecal papillae. May form monospecies settlements.

**Colour:** Pale brown, sometimes with white branch tips.

**Distribution:** In Vietnam occurs everywhere, depth 0.5-20 m. Distributed in Indo-Pacific.
**Montipora undata Bernard, 1897**

**Characters:** Colonies are encrusting, or thick columns and branches. Corallites are immersed and indistinct. The coenosteum has tuberculae fused into ridges, which may form a pattern of flame-shaped structure. Occurs in different reef zones, Uncommon.

**Colour:** Purple, pink or brown, with pale growing margins.

**Distribution:** In Vietnam known on reefs of Baitylong Archipelago, islands Cham, Re, Con Son, Tho Chu, Khanh Hoa province, depth 2-20 m. Common in Indo-Pacific.

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**Montipora tuberculosa (Lamarck, 1816)**

**Characters:** Colonies are submassive, plate-like or encrusting. Corallites are up to 0.7 mm in diameter, some erect, some immersed. Corallites are separated by papillae or tuberculae. Common, occurs in all reef zones.

**Colour:** Brown, grey or green, dark and light shades.

**Distribution:** In Vietnam known everywhere including the reefs at the north of the Gulf of Tonkin, depth 1-30 m. Common in tropical Indo-Pacific zone.
Montipora vietnamiensis Veron, 2000

Characters: Colonies have an encrusting or laminar base, with closely compacted short upright branches. Coenosomium ridges are mostly vertical but may be irregular. Occurs in shallow reef environments and rocky foreshores.

Colour: Brown, usually with white branch tips.

Distribution: Known in Vietnam everywhere excluding Gulf of Tonkin, depth 3-10 m. Distributed in the Central Indo-Pacific.
**Gardinoseris planulata (Dana, 1846)**

**Characters:** Colonies are massive to encrusting. Corallites have poorly defined walls but are separated by acute ridges so that each corallite is a neatly rounded excavation.

**Colour:** Pale or dark brown, sometimes yellow or green.

**Distribution:** In Vietnam recorded on the reefs of Khanh Hoa province, islands Re, Thu, Con Son, depth 10-20 m. Distributed in Indo-Pacific, uncommon.

**Pachyseris speciosa (Dana, 1846)**

**Characters:** Thin unifacial plate-incrusting colonies with concentric ridges on the surface. Corallites form concentric rows around the primary corallite. More than one row of corallites may occur between ridges. Common in all reef zones.

**Colour:** Pale grey to brown.

**Distribution:** In Vietnam known at most of reefs, excluding Gulf of Siam, depth 1-35 m. Widely distributed in Indo-Pacific.
**Pachyseris rugosa (Lamarck, 1801)**

**Characters:** Colonies are encrusting and upright, irregular, usually contorted, anastomosing bifacial plates. Corallites form in long concentric ridges. Occurs in all reef zones, may form large colonies on reef slopes.

**Colour:** Usually yellow brown.

**Distribution:** In Vietnam known at most of reefs, excluding Gulf of Siam, depth 4-20 m. Widely distributed in Indo-Pacific.

**Pavona cactus (Forskal, 1775)**

**Characters:** Colonies foliaceous, are composed of thin, contorted, bifacial laminae. Corallites are shallow and aligned in irregular rows parallel to frond margins. Common in all reef zones, may form large settlements in lagoon and upper reef slope.

**Colour:** Pale brown or greenish-brown, often with white margins.

**Distribution:** In Vietnam known everywhere, depth 1-11 m. Widely distributed in Indo-Pacific.
**Family**
*Dendrophylliidae*

**Genus**
*Turbinaria*

**Common name**
*Vase coral*

Species of this corals occur as sheets or folia. Colonies are usually convoluted or have a vase-like shape. The corallites are relatively large, protuberant and separated by smooth areas. The Vase corals are usually found at the base of reef slope and in relatively turbid water exposed by sedimentation.

**Characters:** Colonies are flat laminae often forming overlapping tiers, sometimes columnar. They may be several metres across. Corallites are immersed to tubular and average 6-10 mm diameter. Different reef zones, may form monosettlements.

**Colour:** Usually light-grey or brown.

**Distribution:** Are common everywhere in Vietnam (depth 1-30 m) and Indo-Pacific.
Family Dendrophylliidae • Genus Turbinaria

**Turbinaria reniformis Bernard, 1896**

**Characters:** Colonies are composed of unifacial laminae usually with wavy edges. Coralites are widely or dense spaced, thick walled, immersed to conical in shape and average 3 mm diameter. Occurs in different reef zones with turbid waters.

**Colour:** Brown with various shades.

**Distribution:** Baitylong archipelago, Nha Trang Bay, islands Re, Con Son, Tho Chu, Nam Su, depth 4-20 m. In Indo-Pacific, may be common.

- This large family coral which have very large corallites with large fleshy polyps. They have smooth, plate-like septa, and the coenosteum may be covered by epiteca. The polyps are usually at least partly extended, so that masses of tentacles project from the surface of the colony.

- Это большое семейство кораллов, которые имеют очень большие кораллиты с крупными мясистыми полипами. Они имеют гладкие, пластинчатые септы и ценостеум, покрытый особым слоем – эпитекой. Полипы обычно частично расширяются так, что многие щупальца выступают над поверхностью колонии.
**Euphyllia ancora Veron et Pichon, 1980**

**Characters:** Flabelo-meandroid colonies may form a continuous cover over the substrate many metres across although individual colonies are seldom over one metre across. Colonies have the same skeletal structure as Euphyllia divisa. Polyps have large tubular tentacles (part Veron, 2000). Reef slopes.

**Colour:** Blue-grey to orange, usually with pale cream or green.

**Distribution:** Nha Trang Bay, Con Son Islands, depth 6-25 m. South-West Pacific, Maldives Islands.

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**Euphyllia glabrescens**

*(Chamisso et Eysenhardt, 1821)*

**Characters:** Colonies are phaceloid and phacelo-flabellate. Corallites are 15-25 mm across and 15-30 mm apart. Small colonies form polycentric flabellate corallites. Reef slopes.

**Colour:** Tentacles have grey-blue to grey-green with cream painting with pink or white tips.

**Distribution:** Are known everywhere except north parts Tonkin Gulf and Thai-land Gulf, dept 6-18 m. Uncommon but conspicuous in all Indo-Pacific.
**Physogyra lichtensteni**
*(Milne Edward et Haime, 1851)*

**Characters:** Colonies are generally massive. They are meandroid with short, widely separated valleys interconnected with light blistered coenossteum. During the day the whole colony surface is covered with a mass of vesicles the size of small grapes and are grape-like or bifurcated in shape. Reef slopes.

**Colour:** Pale grey, sometimes dull green.

**Distribution:** Are known in reef islands Cham, Con Son, Van Phong and Nha Trang province, depth 6-20 m. Common in Indo-Pacific.

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**Physogyra sinuosa** *(Dana, 1846)*

**Characters:** Colonies are meandroid and flabelmoid with broad coralites up to 40 mm across. Vesicles are the size of grapes and usually have the shape of grapes but may be tubular. Calices are deep and funneled. Reef slopes.

**Colour:** Usually bluish-grey or cream.

**Distribution:** Are known everywhere inclusive Thailand and Tonkin Gulfs, depth 8-20 m. All Indo-Pacific.

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**Plerogyra sinuosa** *(Dana, 1846)*

**Characters:** Colonies are meandroid and flabelmoid, with broad coralites up to 40 mm across. Vesicles are the size of grapes and usually the shape of grapes but may be tubular. Calices are deep and funneled. Reef slopes.

**Colour:** Usually bluish-grey or cream.

**Distribution:** Are known everywhere inclusive Thailand and Tonkin Gulfs, depth 8-20 m. All Indo-Pacific.
Barabattoia amicorum
(Milne Edwards et Haime, 1850)

Characters: Colonies are massive and usually small. Corallites are plocoid to tubular. Budding is primarily extratentacular. Costae are equal and well developed. Columella are small and compact. Tentacles are extended only at night. Reef slope.

Colour: Usually yellow-brown, cream or green with pale oral discs.

Distribution: Are known everywhere except for northern part of Tonkin Gulf, depth 4 15 m. Uncommon in Central and South-West Pacific.

Colony massiva e generalmente piccole. Coralliti sono placoide e tubolari. Il Почкование происходит вне щупалец. Косты равны и хорошо развиты. Колумеллы маленькие и компактные. Щупальца открываются только ночью. Распространены на склоне рифа.

Обычно желто-коричневые, кремовые или зеленые со светлыми оральными дисками.

Не частые в центральной Индо-Тихоокеанской области.
**Caulastrea tumida Matthai, 1928**

**Characters:** Colonies are phaceloid or plocoid. Coralites are short and sturdy, 10-15 millimetres diameter, and frequently have more than one mouth. Costae are poorly developed. Reef slope. Colour: Dull cream, grey and green.

**Distribution:** Are known on reefs islands Cham, Con Son, Van Phong province, depth 6-18 m. Distributed in Indo-Pacific, common only in Western Australian and Japan.

**Caulastrea furcata Dana, 1846**

**Characters:** Colonies are phaceloid. Coralites diverge from the colony base, or are irregular, or crowded if space is restricted. Septa are exsert and irregular, with some septa thicker than others. Polyps are fleshy; thick septa give prominent radiating stripes to the upper coralite surface. Reef slope. Colour: Brown or bluish green with green oral discs.

**Distribution:** Are known on reefs islands Cham, Con Son, Van Phong province, depth 6-18 m. Common in Indo-Pacific except for Red Sea.
**Cyphastrea japonica Yabe et Sugiyama, 1932**

**Characters:** Colonies are submassive or encrusting, with an irregular surface. Corallites are small and often crowded and overhanged. Shallow exposed reef environments.

**Colour:** Light-grey, cream, or yellowish-green.

**Distribution:** Nha Trang Bay, islands Thu, Anthoi, depth 4-20 m. South-West Pacific.

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**Diploastrea heliopora (Lamarck, 1816)**

**Characters:** Colonies are dome-shaped and may be up to 2 metres high and 5 metres across. Corallites form low cones with small openings and very thick walls. Common both exposed and protected reef environments.

**Colour:** Usually uniform brown, cream or grey.

**Distribution:** Common in Vietnam and Indo-Pacific, depth 4-20 m. Sometimes common in Indo-Pacific.
**Echinopora lamellosa (Esper, 1795)**

**Characters:** Colonies are thin laminae arranged in whorls or tiers or forming tubes. May be over 3-5 metres across. Corallites are relatively thin walled and small (2.5-4 mm diameter). May be a dominant species in shallow water.

**Colour:** Usually pale to dark brown or greenish.

**Distribution:** Baitylong Archipelago, Nha Trang Bay, islands Re, Thu, Con Son, depth 3-20 m. Are known in all Indo-Pacific.

**Favia lizardensis Veron et Pichon, 1977**

**Characters:** Colonies are spherical, columnar or nodular. Corallites are evenly distributed and conical, with endotheal walls. Most reef environments, usually reef slopes. Most reef environments, usually reef slopes.

**Colour:** Pinkish brown with cream or greenish oral discs.

**Distribution:** Seldom common in Vietnam, depth 2-15 m. South-West Pacific, Seychelles Islands, East Africa.
**Favia maritima (Nemenzo, 1971)**

**Characters:** Colonies are massive and usually hemispherical. Corallites are exsert. Septa are uniform, fine and numerous. Paliform lobes are poorly developed or absent. Most reef environments.

**Colour:** Dark brown or greenish, sometimes with pale oral discs.

**Distribution:** Baitylong Archipelago, Nha Trang and Van Phong Bays, islands Thu, Nam Su, An Thoi, depth 2-18 m. South-West Pacific, Maldives Islands, Red Sea, Madagascar.

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**Favia maxima Veron et Pichon, 1977**

**Characters:** Colonies are massive spherical. Corallites are large plocoid, with well defined walls. Most reef environments, usually reef slopes.

**Colour:** Green, yellow-brown.

**Distribution:** Are known everywhere except for Cham Island, depth 2-20 m. South-West Pacific, Seychelles Islands, Red Sea.

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**Characters:** Colonies are massive spherical. Corallites are large plocoid, with well defined walls. Most reef environments, usually reef slopes.

**Colour:** Green, yellow-brown.

**Distribution:** Are known everywhere except for Cham Island, depth 2-20 m. South-West Pacific, Seychelles Islands, Red Sea.
Favia rotumana (Gardiner, 1899)

Characters: Colonies are massive with irregular plocoid corallites up to 9 mm across. Calices are very deep. Different reef zones.

Colour: A wide range, usually with contrasting corallite walls and oral discs.

Distribution: Nha Trang Bay, Islands Re, Thu, Con Son, Anthoi, depth 4-20 m. Are known in all Indo-Pacific.

Favia vietnamensis, Veron 2000

Characters: Colonies are usually small. Corallites are irregularly shaped and highly overhang. Septa are irregular in height. Most reef environments, often reef slopes.

Colour: Green, yellow, brown or grey.

Distribution: Nha Trang and Van Phong Bays, depth 3-6 m. South-West Pacific.
**Favites complanata (Ehrenberg, 1834)**

**Character:** Colonies are massive with slightly angular corallites. Corallites have thick, rounded walls. Costae commonly form a three-pointed star where three corallites adjoin. Usually reef slopes.

**Colour:** Usually brown, pale-grey sometimes with green or grey oral discs.

**Distribution:** Common in Vietnam and all Indo-Pacific, depth 2-20 m.

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**Favites chinensis (Verrill, 1866)**

**Character:** Colonies are massive and rounded. Corallites are shallow, angular to subplocoid, with thin walls. Septa are straight and even. Those of adjacent corallites are aligned across the wall. Most reef environments.

**Colour:** Usually yellow or greenish-brown.

**Distribution:** Baitylong Archipelago, islands Re, Thu, Con Son, Nha Trang and Van Phong Bays, depth 4-20 m. Are known in all Indo-Pacific.
**Favites flexuosa (Dana, 1846)**

**Characters:** Colonies are hemispherical or encrusting-massive. Corallites are cerioid and deep. Most reef environments.

**Colour:** A wide range, usually with contrasting walls and oral discs.

**Distribution:** Sometimes common in Vietnam (depth 3-20 m) and in all Indo-Pacific.

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**Goniastrea aspera Verrill, 1865**

**Characters:** Colonies are round massive and massive-encrusting. Corallites are cerioid, five-heptagonal and have thick walls. Different reef zones.

**Colour:** Usually pale-brown.

**Distribution:** Baitylong Archipelago, Khanh Hoa province, Islands Cham, Re, Thu, Con Son, Nam Su, depth from littoral to 25 m. Common in Indo-Pacific.

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**Family Faviidae • Genus Goniastrea**

Goniastrea aspera Verrill, 1865

Characters: Colonies are round massive and massive-encrusting. Corallites are cerioid, five-heptagonal and have thick walls. Different reef zones.

Colour: Usually pale-brown.

Distribution: Baitylong Archipelago, Khanh Hoa province, Islands Cham, Re, Thu, Con Son, Nam Su, depth from littoral to 25 m. Common in Indo-Pacific.

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**Family Faviidae • Genus Favites**

Favites flexuosa (Dana, 1846)

Characters: Colonies are hemispherical or encrusting-massive. Corallites are cerioid and deep. Most reef environments.

Colour: A wide range, usually with contrasting walls and oral discs.

Distribution: Sometimes common in Vietnam (depth 3-20 m) and in all Indo-Pacific.
**Goniastrea pectinata (Ehrenberg, 1834)**

**Characters:** Colonies are round massive and massive-encrusting. Corallites are cerioid, four-pentagonal and submeandroid up to 10-14 mm across. Different reef zones.

**Colour:** Usually pale-brown with various shades.

**Distribution:** Are known everywhere in Vietnam (depth from littoral to 25 m) and Indo-Pacific.

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**Leptastrea pruinosa Crossland, 1952**

**Characters:** Colonies are encrusting-massive. Corallites are cerioid and polygonal. Septa are in distinctive 4-5 cycles and have granulated sides and margins. Occurs in a wide range of reef environments.

**Colour:** Brown-green with more light calices.

**Distribution:** Baitylong Archipelago, Nha Trang and Van Phong Bays, islands Thu, Con Son, Nam Su, Anhdoi, depth 2-20 m. South-West Pacific, Red Sea.
Montastrea colemani Veron, 2000

**Characters:** Colonies are submassive to encrusting, with compact rounded coral-lites 5-8 millimetres diameter. 'Groove and tubercle' formations are well developed. Two cycles of septa clearly alternate; both are thickened over walls and are uniformly toothed. Reef slopes.

**Colour:** Uniform pale-brown or brown with green centres.

**Distribution:** Van Phong and Nha Trang Bays, depth 6-16 m. Common in South-West Pacific.

Leptoria phrygia (Ellis et Sollander, 1786)

**Characters:** Colonies are massive, submassive or ridged, occasionally columnar, with an even surface and dense skeleton. Coralite valleys are sinuous and uniform. Columellae are plate-like. Most reef environments.

**Colour:** Usually pale-brown, grey or yellow.

**Distribution:** Common in all Vietnam and Indo-Pacific, depth 1-25 m.

**Montastrea colemani** Veron, 2000

**Characters:** Colonies are submassive to encrusting, with compact rounded coral-lites 5-8 millimetres diameter. 'Groove and tubercle' formations are well developed. Two cycles of septa clearly alternate; both are thickened over walls and are uniformly toothed. Reef slopes.

**Colour:** Uniform pale-brown or brown with green centres.

**Distribution:** Van Phong and Nha Trang Bays, depth 6-16 m. Common in South-West Pacific.
**Oulophyllia bennettae** *(Veron et Pichon, 1977)*

**Characters:** Colonies are massive with large angular corallites, which may have up to three columellae. Septa are widely spaced, with large rounded teeth. Reef slopes.

**Colour:** Cream, greenish-grey with green oral discs.

**Distribution:** Usually in Indo-Pacific, inclusive Vietnam, depth 6-18 m.

**Oulophyllia crispa** *(Lamarck, 1816)*

**Characters:** Colonies are submassive or hemispherical flattened. Valleys are short, broad. V-shaped and have sharp upper margins. Columellae are weakly developed. Usually reef slopes.

**Colour:** Uniform grey-blue or with brown walls.

**Distribution:** Usually in Indo-Pacific, inclusive Vietnam, depth 6-20 m.
**Platygyra daedalea (Ellis et Solander, 1786)**

**Characters:** Colonies are massive, and meandroid or submeandroid. Septa have a characteristically ragged appearance. Columellae are weakly developed. Most reef environments

**Colour:** Commonly bright-coloured, with pale-brown walls and light-grey valleys.

**Distribution:** Are known everywhere in Vietnam and Indo-Pacific, depth 1-20 m.

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**Platygyra lamellina (Ehrenberg, 1834)**

**Characters:** Colonies massive and meandroid, with thick walls. Corallites are lengthful twisting. Septa are uniformly exsert and are neat and rounded. Columellae may be well developed. Most reef environments

**Colour:** Usually brown or with brown walls and grey or green valleys.

**Distribution:** Are known everywhere in Vietnam and Indo-Pacific, depth 1-20 m.
These corals are a solitary polyp of large size is found lying non-attached on the bottom, except in the early stages of development. Young individuals are attached to the substratum by a stalk. There are many species of mushroom corals varying in shape from round to oval and its size.

Platygyra pini Chevalier, 1975

**Characters:** Colonies are encrusting-massive. Coral-lites are monocentric or form short valleys. Septa are thin and evenly spaced. Columella may be some development. Most reef environments.

**Colour:** Usually grey- or yellow-brown with green or cream valley floors.

**Distribution:** Are known in Vietnam exclusive Island Cham, depth 3-10 m. Distributed in Central, South-West Pacific and Madagascar.
Family Fungiidae • Genus Ctenactis

Ctenactis echinata (Pallas, 1766)

Characters: Polyps are elongate and have 200-250 mm long. Septal teeth and costal spines are both strongly developed. Stomate fossa is narrow, open and very long. Only a single mouth is present. Found with other Fungia species on reef slopes.

Colour: Usually brown.

Distribution: Are known everywhere except for northern part of Tonkin Gulf, dept 4-18 m. South-West Pacific, Maldives Islands, Red Sea.

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Fungia concina Verrill, 1864

Characters: Polyps are circular, up to 160 millimetres diameter and generally flat. Septa are densely packed. Septal teeth and costal spines are small, giving septa a smooth appearance. The undersurface is usually without pits.

Colour: Usually brown, sometimes with a contrasting perimeter.

Distribution: Van Phong and Nha Trang Bays, Con Son, depth 4-10 m. Common in Indo-Pacific.

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Family Fungiidae • Genus Fungia

Fungia concina Verrill, 1864

Characters: Polyps are circular, up to 160 millimetres diameter and generally flat. Septa are densely packed. Septal teeth and costal spines are small, giving septa a smooth appearance. The undersurface is usually without pits.

Colour: Usually brown, sometimes with a contrasting perimeter.

Distribution: Van Phong and Nha Trang Bays, Con Son, depth 4-10 m. Common in Indo-Pacific.

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Family Fungiidae • Genus Fungia

Fungia concina Verrill, 1864

Characters: Polyps are circular, up to 160 millimetres diameter and generally flat. Septa are densely packed. Septal teeth and costal spines are small, giving septa a smooth appearance. The undersurface is usually without pits.

Colour: Usually brown, sometimes with a contrasting perimeter.

Distribution: Van Phong and Nha Trang Bays, Con Son, depth 4-10 m. Common in Indo-Pacific.

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Family Fungiidae • Genus Ctenactis

Ctenactis echinata (Pallas, 1766)

Characters: Polyps are elongate and have 200-250 mm long. Septal teeth and costal spines are both strongly developed. Stomate fossa is narrow, open and very long. Only a single mouth is present. Found with other Fungia species on reef slopes.

Colour: Usually brown.

Distribution: Are known everywhere except for northern part of Tonkin Gulf, dept 4-18 m. South-West Pacific, Maldives Islands, Red Sea.
**Fungia corona Doderlein, 1901**

**Characters:** Polyps have an irregular outline, flat to strongly convex, thin and light. Septa are of markedly different sizes and have large pointed teeth. Tentacular lobes are weakly developed. Costae are widely spaced, the larger having simple spines. The undersurface has pits between the costae.

**Colour:** Pale brown often with pale septal margins and tentacular lobes.

**Distribution:** Baitylong Archipelago, Khanh Hoa province, Con Son Islands, depth 2-12 m. Common in the Red Sea and western Indian Ocean, uncommon elsewhere.

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**Fungia fungites (Linnaeus, 1758)**

**Characters:** Free-living solitary coral. Polyps are approximately circular and up to 30 cm diameter. Septal teeth are triangular, pointed and usually have well defined central ribs. Common in different reef zones, can make the numerous aggregations at reef slope.

**Colour:** Brown with pale tentacular lobes.

**Distribution:** In Vietnam known everywhere, depth 2-30 m. Widely distributed in Indo-Pacific.

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Family Fungiidae • Genus Fungia

Characters: Polyps have an irregular outline, flat to strongly convex, thin and light. Septa are of markedly different sizes and have large pointed teeth. Tentacular lobes are weakly developed. Costae are widely spaced, the larger having simple spines. The undersurface has pits between the costae.

Colour: Pale brown often with pale septal margins and tentacular lobes.

Distribution: Baitylong Archipelago, Khanh Hoa province, Con Son Islands, depth 2-12 m. Common in the Red Sea and western Indian Ocean, uncommon elsewhere.
**Fungia seychellensis** Hoeksema, 1993

Characters: Polyps are circular to elongate and up to 150 millimetres long. Mouths may occur outside the axial furrow. Septa are fine, densely packed and usually sinuous. Tentacular lobes are inconspicuous or absent.

Colour: Pale brown.

Distribution: Are known on reefs Baitylong Archipelago, Nha Trang and Van Phong Bays, depth 4-10 m. Uncommon in Madagascar, Seychelles and Maldives Islands, Central Vietnam.

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**Fungia paumotensis** Stuthbury, 1833

Characters: Polyps are elongate and have 170-200 mm long with almost parallel sides. They are thick and heavy and usually have a strong central arch. Most primary septa extend from the mouth to the perimeter. Reef slopes.

Colour: Usually brown.

Distribution: Are known on reefs Baitylong Archipelago, Nha Trang and Van Phong Bays, Islands Thu, Nam Su, An Thoi, depth 4-15 m. Common in Indo-Pacific.

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Кораллы круглые и удлиненные до 150 миллиметров. Рты могут иметься вне осевой борозды. Септы тонкие, плотно упакованные и обычно извилистые. Тентакулярные лепестки неприметны или отсутствуют.

Светло-коричневые. Редки на рифах Мадагаскара, Сейшельских и Мальдивских островов и центрального Вьетнама.
**Herpolitha limax Houttuyn, 1772**

**Characters:** Colonies are usually elongate and have up to 400 mm long. Mouths occur within the axial furrow which runs most of the length of the colony. Secondary mouths outside the furrow are numerous. Found with other Fungia species on reef slopes.

**Colour:** Usually brown or light-brown.

**Distribution:** Are known everywhere except for northern part of Tonkin Gulf, depth 3-15 m. Common in Indo-Paciﬁc.

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Fig. 7. Aggregation of mushrooms corals on reef slope of Mun Island in Nhatrang Bay
Скопление грибовидных кораллов на склоне рифа острова Мун в бухте Нячанг.
Family Fungiidae • Genus Podobacia

Podobacia crustacea (Pallas, 1766)

Characters: Colonies are attached, encrusting or laminar, unifacial, and may form tiers. A central corallite is sometimes distinguishable and more large; peripheral corallites are in the form of a central corallite. Secondary corallites are confused towards the plate margins. Secondary stromes are numerous small (part Veron, 2000). Different reef zones.

Colour: Brown or dark tan. Distribution: Are known everywhere in Vietnam (depth 3-30 m) and Indo-Pacific.

Family Fungiidae • Genus Lythophyllon

Lythophyllon undulatum Rehberg, 1892

Characters: Colonies are encrusting or form flat laminar with lobed margins. There is usually central corallite. Secondary corallites are circumstomalaeum. Reef slopes and rocky foreshores. Colour: Deep green or brown. Distribution: Are known in reefs of Tonkin Gulf, Nha Trang and Van Phong Bays, islands Thu, Con Son, Tho Chu, depth 3-20 m. South-west Pacific.
This is a small family, in which corallites in colonies are joined in series, with high walls separating them.

Это маленькое семейство, в котором кораллиты в колониях соединяются последовательно, с отделяющими их высокими стенками.

**Sandalolitha robusta (Quelch, 1884)**

**Characters:** Colonies are large, circular to oval, dome-shaped and heavily constructed, without an axial furrow. Secondary stomates are densely located on all area coral. Most reef habitats.

**Colour:** Usually pale or dark brown or green.

**Distribution:** Are known everywhere except for northern part of Tonkin Gulf. Central and South-West Pacific, Maldives Islands.

Кораллы крупные, круглые или овальные, выпуклые и тяжелые, без осевой борозды. Вторичные стоматы плотно расположены по всей поверхности коралла. Встречаются в большинстве биотопов рифа. Обычно светло- и темно-коричневые или зеленые.

Центральная и юго-западная пачифика, Мальдивские острова.
**Hydnophora microconos (Lamarck, 1816)**

**Characters:** massive-in-crusting colonies, sometimes with colunmmary branches. Conical monticules evenly distributed on surface, 14-20 septae of two orders are formed. Corallite walls not conspicuous. Common, occurs in all reef environments but primarily in lagoons and protected slope.

**Colour:** Dull cream, brown or green.

**Distribution:** In Vietnam known everywhere (depth 1-25 m), Widely distributed in Indo-Pacific.

**Merulina ampliata (Ellis et Solander, 1786)**

**Characters:** Colonies are laminar or subbarborescent, may be composed only of plates or, in shallow water, primarily of branches. Valleys are short, straight, and spread in a fan before dividing. They radiate from the colony centre on flat surfaces, but are highly contorted on branches. Common, reef slopes.

**Colour:** Cream-brown, pale.

**Distribution:** In Vietnam known everywhere (depth 4-25 m), Widely distributed in Indo-Pacific.
This corals are characterized by very large size and have a very spiky appearance, due to the presence of long projections called teeth along the blade of the septa (look Fig. 5).

Characters: Colony are encrusting and fleshy. Coralites are cerioid, with irregular angular shapes. A central corallite is usually conspicuous. Septa are compact and columellae are small. Rare, occurs on lower reef slope.

Colour: Blue-grey, brown.

Distribution: In Vietnam recorded on reefs of Khanh Hoa province, depth 14 m. Distributed in central Indo-Pacific including south of Japan.
**Lobophyllia flabelliformis Veron, 2000**

**Characters:** Colonies are large, usually dome-shaped. They are flabellum-eamneandroid with closely compacted elongate valleys. Polyps have a thick fleshy mantle which obscures the underlying skeletal structure and thus this species appears to be a Symphyllia underwater. Reef slope.  
**Colour:** Uniform dark grey-brown.  
**Distribution:** In Vietnam occurs in the east part of the Gulf of Siam and Van Phong province, depth 4-10 m. Usually uncommon in South-West Pacific.

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**Lobophyllia corymbosa (Forskal, 1775)**

**Characters:** Colonies are flat or hemispherical and mostly phaceloid with one to three centres per branch. They seldom exceed 0.5 metres across. Calices are deep, with well defined walls. Septal teeth are tall, decreasing in size towards the columella.  
**Colour:** Brown-greenish with blue-pale centres.  
**Distribution:** Known in Vietnam at most of reefs, depth 4-20 m. Widely distributed in Indo-Pacific.
**Symphyllia agaricia Milne Edwards et Haime, 1849**

**Characters:** Colonies are hemispherical to flat. Valleys are sinuous or straight, averaging 35 millimetres wide and are usually separated by a narrow groove. Walls have a thick fleshy appearance. Septa are thick and have large teeth. Usually reef slopes.

**Colour:** Brown, green or red, usually with distinctly contrasting valley and wall colours.

**Distribution:** Baileylong Archipelago, Khanh Hoa province, islands Con Son Nam Su, depth 6-20 m. Uncommon in Indo-Pacific.

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**Lobophyllia robusta Yabe and Sugiyama, 1936**

**Characters:** Colonies usually consist of a few corallites but may become large and hemispherical. Corallites are large, phaceloid and mostly monocentric. Septa have tall sharp teeth. Uncommon, occurs in most reef zones.

**Colour:** Blue-grey, sometimes with pale valley.

**Distribution:** In Vietnam occurs in the east part of the Gulf of Siam and Khanh Hoa province, dept 4-20 m. Distributed in Indo-Pacific including Red Sea and reefs of Japan.
Symphyllia radians Edwards et Haime, 1849

**Characters:** Meandroid colonies are hemispherical to flat. Valleys average 20-25 millimetres wide, becoming straight in flat colonies. Calices deep with vertical walls, septae arranged in 3 orders and have a moderately thick. Common on upper reef slopes.

**Colour:** Greenish-brown, with valleys usually of grey-blue shades.

**Distribution:** In Vietnam known at most reefs, depth 6-20 m. Widely distributed in Indo-Pacific.

Symphyllia recta (Dana, 1846)

**Characters:** Colonies are hemispherical to flat. Valleys are 12-15 millimetres wide, and are highly sinuous. Polyp walls have a moderately thick, fleshy appearance and usually have a groove along the top. Occurs in all reef zones.

**Colour:** Brown, grey or green.

**Distribution:** In Vietnam known everywhere, depth 5-20 m. Widely distributed in Indo-Pacific.
Family Oculinidae
Genus Galaxea

These corals are easily recognized by their spiky appearance, due to the septa extending above the corallite and their solid high walls.

Galaxea fascicularis (Linnaeus, 1767)

Characters: Massive columnar to incrusting plocoid colonies up to 5 meters across. Corallites cylindrical, oval and polygonal, up 9 mm across. Septae arranged in 4-5 cycles, their amount 48-60. Dissepiments thick, rare, sub-horizontal. Common in all reef zones, may form single species settlements.

Colour: Green and brown shades.

Distribution: Known in Vietnam everywhere, depth 1-25 m. Widely distributed in Indo-Pacific.

Массивные столбчатые или корковые пло́коидные колонии до 5 метров в поперечнике. Кораллиты, цилиндрические, овальные и многогольные до 9 мм в поперечнике. Септы 4-5 циклов в количестве 48-60 перегородок. Диссепименты толстые, редкие, субгоризонтальные. Обычны во всех зонах рифа, могут формироваться моновидовые поселения.

Цвета зеленых и коричневых оттенков.

Широко распространены в Индо-пацифике.
Family *Pectiniidae*  
Genus *Mycedium*  
Genus *Pectinia*

This corals have the corallites always visible to the naked eye, and may be very large. They do not have definite walls, and adjacent corallites are linked.

*Mycedium elephantotus* (Pallas, 1766)

**Characters:** Encrusting colonies with free laminar margins. Corallites are up to 15 millimetres diameter and nose-shaped, facing outward towards the colony perimeter. Costae form outwardly radiating ribs on the colony surface. Common, most reef environments protected from strong wave action.

**Colour:** Usually a uniform brown, grey, green or red.

**Distribution:** Known in Vietnam everywhere excluding east part of the Gulf of Siam, depth 6-30 m. Widely distributed in Indo-Pacific.

Инкустирующие колонии со свободными пластинчатыми краями. Кораллиты до 15 мм диаметром ноздревидной формы, ориентированные наружу к периметру колонии. Костальные ребра радиально расходятся по поверхности колонии. Обычны в большинстве биотопов рифа, защищенных от сильного действия волны.

Обычно однородный коричневый цвет, серый, зеленый или красный.

Широко распространены в Индо-пацифике.
These are branching corals which corallites are very small, with poorly developed septa and a rodlike columella.

Это ветвистые кораллы с очень маленькими кораллитами, с плохо развитыми септами и колумеллой в виде невысокого прутика или штока.

**Pectinia paeonia (Dana, 1846)**

**Characters:** Plate-like round colonies up to 35 cm across. Corallites irregularly distributed or arranged in short rows. Exsert costae form upwardly projecting spires and high narrow ridges. Columella are weakly developed. Septa are smooth or have small teeth. Common, occurs on reef slopes.

**Colour:** Blue, grey or brownish-green.

**Distribution:** In Vietnam recorded on the reefs of Khanh Hoa province, An Thoi, Thu, Con Son, Tho Chu islands, depth 4-30 m. Distributed in central Indo-Pacific up to Japan.

Family *Pocilloporidae*
Genus *Pocillopora*
Genus *Seriatopora*
Genus *Stylophora*
**Pocillopora damicornis (Linnaeus, 1758)**

**Characters.** Branching colonies which are seldom compact clumps reaching several meters across. Verrucae are not distinctive. Colonies are compact in habitats exposed to strong waves action and thin in protected areas. Common in wide range of habitats and in all reef zones.

**Colour.** Usually pale brown, greenish or pink.

**Distribution.** Widely distributed in Indo-Pacific, inclusive Vietnam, depth 1-30 m.

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**Pocillopora verrucosa (Ellis and Solander, 1786)**

**Characters.** Colonies are composed of uniform thick branches with clearly distinct verrucae, the latter are irregular in size. Common in wide range of habitats, usually occurs in lagoons and on reef slopes.

**Colour.** Usually yellow, pink or brown, sometimes green.

**Distribution.** Widely known in Vietnam and in Indo-Pacific, depth 1-20 m.

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Family Pocilloporidae • Genus Pocillopora
**Family Pocilloporidae • Genus Pocillopora**

**Pocillopora eydouxi Edwards & Haime, 1860**

**Characters:** Colonies with flattened branches and may form large single species settlements. Verrucae are uniform in shape and spacing. Branches are widely separated or compact, especially where currents are strong. Common at upper parts of reef slope.

**Colour:** Usually yellow to dark green or brown.

**Distribution:** Are known from Da Nang Peninsula, Re, Thu, Kondao, Tho Chu islands in Vietnam, depth 2-10 m. Widely distributed in Indo-Pacific.

**Pocillopora woodjonesi Vaughan, 1918**

**Characters:** Colonies are composed of flattened branches with small verrucae. The coenosteum is covered with fine granules. In Vietnam occurs mostly on exposed and protected reef slopes, where colonies form the tall branches.

**Colour:** Pink or brown.

**Distribution:** Known in Vietnam everywhere excluding Baitylong Archipelago, depth 2-15 m. Widely distributed in Indo-Pacific.
**Stylophora pistillata Esper, 1797**

**Characters:** Colonies are branching with blunt-ended branches becoming thick and submassive. Corallites are immersed. The coenosteum is covered by fine spinules. Common; may be a dominant species on reef fronts.

**Colour:** Yellow-cream, pink or brown.

**Distribution:** In Vietnam relatively common on some reefs of Phu Quoc and Tho Chu Islands, Khanh Hoa province, depth from 0 to 40 m. Widely distributed in Indo-Pacific.

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**Seriatopora hystrix Dana, 1846**

**Characters:** Colonies with thin branches, which tapered to a point and usually fuse in an irregular manner. Corallites are arranged in neat rows along branches. Polyps are not extended during the day. Can form monospecific settlements in lagoon and upper reef slopes.

**Colour:** Cream or brown.

**Distribution:** In Vietnam known on reefs of Da Nang Peninsula, islands Re, Thu, Con Dao, Nam Su, Tho Chu, Khanh Hoa province, depth 1-25 m. Widely distributed in Indo-Pacific.
Family Poritidae
Genus Goniopora

Colonies are usually massive, laminar or ramose. Corallites have a wide size range but are usually compacted with coenosteum. Wall and septa have a porous fine structure.

**Characters:** Massive colonies without hillocks. Corallite walls up to 3 mm in height, composed of 1 row of denticle. Septae of the first cycle reach the small columella. Polyps are elongate when fully extended. May form large single species settlements, especially in turbid water.

**Colour:** Light-brown or yellow – brown.

**Distribution:** Known in Vietnam everywhere, depth 4-30 m. Widely distributed in Indo-Pacific.

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*Goniopora lobata Edwards et Haime, 1851*

Массивные колонии без бугорков. Стенки кораллитов до 3 мм в высоте, составлены из 1 ряда дентикулей (зубчиков, характерных для всего семейства). Септы первого цикла достигают маленькой колумеллы. Полипы удлиняются, когда полностью расправлены. Могут формировать обширные поселения, особенно в мутной воде.

**Colour:** Светло-коричневые или желто-коричневые.

Широко распространены в Индо-太平洋.
**Porites australiensis Vaughan, 1918**

**Characters:** Colonies are hemispherical to helmet-shaped and may be over 3 m across. The surface is smooth or has irregular humps and nodules. Corallite walls are thick or ridge-like. There are 8 pali, which can rich the level of wall. Common at shallow reef zones.

**Colour:** Cream, yellow or pale.

**Distribution:** In Vietnam known everywhere, depth 1-30 m. Widely distributed in Indo-Pacific tropical zone.

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**Porites cylindrica Dana, 1846**

**Characters:** Colonies are branching, sometimes with an encrusting base. They have thick cylindrical branches, the tips of branches are conical or flattened. Corallites are shallow giving branches a smooth surface. Common, may be a dominant species at shallow reef zones.

**Colour:** Cream or yellow.

**Distribution:** In Vietnam recorded on reefs of Re and Katuik islands, Khanh Hoa province, depth 2-16 m. Widely distributed in Indo-Pacific tropical zone.
**Porites deformis** Nemenzo, 1955

**Characters:** Colonies are thin basal laminae and nodular branches that fuse into clumps. Corallites are superficial and branch surfaces are smooth. Tentacles are sometimes extended during the day.

**Colour:** Pale brown.

**Distribution:** Reefs of Khanh Hoa province, depth 4-6 m. Uncommon in South-West Pacific.

- Colony with thin basal laminae and nodular branches that fuse into clumps. Corallites are superficial and branch surfaces are smooth. Tentacles are sometimes extended during the day.
- Colour: Pale brown.
- Distribution: Reefs of Khanh Hoa province, depth 4-6 m. Uncommon in South-West Pacific.

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**Porites lobata** Dana, 1846

**Characters:** Colonies are usually hemispherical or helmet-shaped and may be over 4 metres across. The surface is usually smooth, sometimes with humps. Corallite walls vary in thickness, pali poorly developed. May be a dominant species at shallows and fringing reefs, forms ‘micro-atolls’ in intertidal habitats.

**Colour:** Usually cream or brown.

**Distribution:** In Vietnam distributed everywhere, widely distributed in Indo-Pacific, depth 1-40 m.

- Colonies usually hemispherical or helmet-shaped and may be over 4 metres across. The surface is usually smooth, sometimes with humps. Corallite walls vary in thickness, pali poorly developed. May be a dominant species at shallows and fringing reefs, forms “micro-atolls” in intertidal habitats.
- Colour: Usually cream or brown.
- Distribution: In Vietnam distributed everywhere, widely distributed in Indo-Pacific, depth 1-40 m.
Porites nigrescens Dana, 1848

**Characters:** Colonies are branching, sometimes with an encrusting base. Concave calicices give the surface a pitted appearance. Tentacles are frequently extended during the day. Common on reef slopes protected from wave action.

**Colour:** Gray, brown or cream.

**Distribution:** In Vietnam known everywhere, depth 1-16 m. Widely distributed in Indo-Pacific.

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Porites rus (Forckal, 1775)

**Characters:** Colonies are submassive, encrusting or form contorted anastomosing branches. Corallites are separated into groups by ridges of coenosteum. Common in shallow reef environments and may form monospecies settlements in lagoon and upper reef slope.

**Colour:** Pale cream, yellow or brown, often with pale branch tips.

**Distribution:** In Vietnam known everywhere, depth 2-15 m. Widely distributed in Indo-Pacific.

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Porites nigrescens Dana, 1848

Колонии ветвистые, иногда с корковой основой. Вогнутые чашки создают впечатление "изъеденной" поверхности ветвей. Щупальца часто раскрываются в течение дня. Обычны на склоне рифа, защищенного от действия волн.

**Светлые кремовые, желтые или коричневые.**

**Широко распространены в Индо-пацифике.**
Family Trachyphylliidae
Genus Trachyphyllia

Trachyphyllia geoffroyi (Audoin, 1826)

Characters: Coral are fla-bello-meandroid with large elongate corallites. They are usually hourglass shaped, up to 80 millimetres in length with one to three separate mouths. Calices are deep up to 30 mm. Lower part reef slopes and Inter-reef environments on soft substrates.

Colour: Usually yellow, brown, blue or green.

Distribution: Khanh Hoa province, islands Con Son, Nam Su, depth 10-40 m. Indo-Pacific.

This corals have of large size corallite with paliform lobes and fine teeth on the septa.

Эти кораллы имеют крупные кораллиты с палиморфными (лопатковидными) лепестками и тонкими зубьями на септах.
This hydrozoan coral can usually be recognized by its smooth surface and form. Its occurs in a variety of growth forms: as branching colonies, encrusting growths, and as colonies with irregular vertical plates. Like other hydrozoan, this coral is capable of giving a nettle-like sting. Common in different zones on reefs of Vietnam exclusive Tonkin Gulf.

Этот гидроидный коралл может обычно легко узнаваться из-за его гладкой коричневой поверхности и формы колоний. Имеется все разнообразие форм роста от тонкого ветвистой до массивной желваковидной и очень тонкой. Этот коралл способен стрекаться жалами подобно крапивным. Обычен в различных зонах на рифах Вьетнама, исключая Тонкинский залив.

**Order**
**Milleporina**

**Family**
**Milleporidae**

**Genus**
**Millepora**

**Common name**
**Stinging of Fire coral**

**Millepora dichotoma** Forskal, 1775

**ABOUT THE AUTHOR**

Yuri Latypov first observed live corals in Australia about 30 years ago and was struck by the beautiful growth and diversity of these remarkable animals. Since then he has had the opportunity to look and study at corals and coral reefs throughout the world from Australia’s Great Barrier Reef up to Seychelles. He has conducted fundamental and applied research on coral in many places and has published the results of these studies in different scientific journal, books and conference proceeding. Dr. Latypov gives special attention to studying of corals and reefs of Vietnam. Last years he investigates opportunities of restoration of reef communities and carries out experiments on artificial cultivation and rehabilitation of corals on the Vietnamese reefs.
ALEXANDER BEDUNKEVICH / АЛЕКСАНДР БЕДУНКЕВИЧ

Alexander Bedunkevich – geologist by education, the fellow student of the author on Novosibirsk State University. Alexander having visited the student on Kamchatka was to have got it and annually visits this Country of Volcanoes last 10 years. He the passionate traveler: Altai and Kamchatka, Alaska and Vietnam, Baikal and Red Sea are not full list of his movement by the Earth. Alexander Bedunkevich is the businessman with good Siberian patronage traditions. He sponsors beginning poets and bards, supports financial native geological faculty and scientific academic stations, and so on. The publication of this book became possible only thanking his financial support.

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