ATOLL RESEARCH BULLETIN

No. 69
Contribution to a German Reef-Terminology
by
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Issued by
THE PACIFIC SCIENCE BOARD
National Academy of Sciences--National Research Council
Washington, D. C.
May 15, 1959
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In Germany recent publications on coral reefs are lacking due to isolation before, during, and after the war. The younger generation of zoologists has had no opportunity to undertake expeditions to tropical seas. But the interest in coral reefs and their inhabitants has always been keen in Germany.

Dr. Hans Hass, the founder of the International Institute for Submarine Research, Vaduz (Liechtenstein), has placed his research ship, the yacht "Xarifa" at the disposal of science. In 1953-54 he carried out an expedition to the Caribbean Sea and to the Galapagos Islands in the Eastern Pacific. He led another expedition in 1957-58 to the Red Sea and to the Maldives Islands in the Indian Ocean. I am much obliged to Dr. Hass for giving me the opportunity to take part in both expeditions.

During both voyages we were diving with oxygen and compressed-air diving equipment. In this way we were able to study the coral reefs in their many aspects by direct observation. We worked in a team, one collecting fishes, others making behavioural studies and so on. Dr. Hass and I were particularly interested in the formation of coral reefs and in the sociological composition of their different parts.

Soon we realized the necessity to use a clearly defined nomenclature for the different parts of a coral reef, and to coordinate this German nomenclature with the English one. After long discussions with the other members of expedition (Dr. Hans Hass; Prof. Dr. W. Luther, director of the Zoological Institute of the University Darmstadt; Dr. I. Eibl-Eibesfeldt, Max Planck-Institute for Verhaltensphysiologie, Seewiesen; Dr. L. Franzisket, director of the Museum of Natural History, Muenster; Dr. S. Gerlach, Zoological Institute of the University Kiel; and Dr. W. Klausewitz, Research Institute and Museum Senckenberg, Frankfurt a.M.) may I present in the following lines a few German terms with English equivalents. They concern mainly atolls, but they are applicable in like manner to all other reefs. This terminology does not go for the present into details, but handles only the great striking characteristics of reefs.

The following list contains mostly translations of English expressions, because there are not such far-reaching subdivisions of coral reefs in the older German publications. I take as basis for the terminology the publications of Tracey, Cloud and Emery: "Conspicuous Features of Organic Reefs", of Harry: "Ichthyological Field Data of Raroia Atoll, Tuamotu Archipelago" and of Kuenen: "Classification of Reefs and their Component Parts". All these publications include figures illustrating the English names mentioned in this paper.

1. Zoological Department, Hessisches Landesmuseum, Darmstadt, Germany.
3. Atoll Research Bulletin No. 18, 1953, p. 21-26
REEPS IN GENERAL
fringing reef
barrier reef
atoll
reef grown up independently in lagoons of barriers and atolls
drowned reef
uplifted reef

SEAWARD REEF
outer slope
terrace
bench or shelf
under-reef cavern
reef front
surge channel
surge zone
surf zone

buttress
groove and buttress-system
reef margin
algal ridge

RIFFE; ALLGEMEIN
Kuestenriff or Saumriff
Wallriff or Barriereriff
Atoll
Fleckenriff or Flachseeriff
ertrunkenes Riff
gehobenes Riff
AUSSENRIFF
Aussenabhang, if the slope is not too steep;
Aussenwand, if the slope is steep, about 70 to 90° to level
Terrasse, a broad, little inclined step in the slope
Absatz, a small terrace, interrupting the slope
Hoehle, great cavern;
Grotte, small cavern
Riffabhang;
Riffwand, the strongly inclined part of the slope, which is more or less covered with living corals
Brandungsrinne
Wellenzone, the outward part of a surge channel
Brecherzone, the inner, landward part of a surge channel
(Wellenzone and Brecherzone together are the Brandungszone)
Riegel
Rinnensystem
Riffkante
Lithothamnionwall
REEF FLAT
seaward edge
tidepool
a sandy zone in shallow water in front of the coast
inter-island channel

ISLAND
seaward beach
shingle rampart
boulder rampart
beachrock
lagoon beach

LAGOON REEF FLAT
a sandy zone in shallow water between the island and the lagoon
lagoon reef margin
lagoon reef face

LAGOON
lagoon slope
lagoon floor
coral head, knoll, or mound
Acropora thicket
tall narrow pinnacle
patch reef
miniature atoll

RIFFPLATTE
Aussenkante
Fluttuempel
seeseitige Seichtwasser-Sandzone
Riffkanal

INSEL
Aussenstrand or Meeresstrand
Geroell-Strandwall
Block-Strandwall
Strandsandstein
Lagunenstrand

LAGUNENRIFFPLATTE
lagunenseitige Seichtwasser-Sandzone
Innenriffkante
Innenriffhang

LAGUNE
Innenhang
Lagunenboden
Korallenblock
Acroporenhecke
Turm
Buckelriff or Korallenbuckel

Miniaturatoll, an atoll-shaped patch reef with a ring of living corals around a deeper flat covered with sand and dead, broken corals
faro

Faro, an atoll-shaped reef of greater extension with a distinct lagoon

This list may serve as a base for a more elaborated German reef terminology. With greatest interest we are looking forward to the Reef Terminology Index, which the Pacific Science Board of the National Academy of Sciences-National Research Council, Washington, D. C., is preparing.