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Contribution to a German Reef-Terminology

by

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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 Maldiva 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"^{2/}, of Harry: "Ichthyological Field Data of Raroia Atoll, Tuamotu Archipelago"^{3/}, and of Kuenen: "Classification of Reefs and their Component Parts"^{4/}. All these publications include figures illustrating the English names mentioned in this paper.

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1. Zoological Department, Hessisches Landesmuseum, Darmstadt, Germany.
 2. Atoll Research Bulletin No. 46, 1955
 3. Atoll Research Bulletin No. 18, 1953, p. 21-26
 4. Marine Geology, New York 1950, chapter 6: Coral Reefs, p. 423-430

REEFS 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, interrupt-
 ing 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	<u>RIFFPLATTE</u>
seaward edge	<u>Aussenkante</u>
tidepool	<u>Fluttuempel</u>
a sandy zone in shallow water in front of the coast	<u>seeseitige Seichtwasser-Sandzone</u>
inter-island channel	<u>Riffkanal</u>
ISLAND	<u>INSEL</u>
seaward beach	<u>Aussenstrand</u> or <u>Meeresstrand</u>
shingle rampart	<u>Geroell-Strandwall</u>
boulder rampart	<u>Block-Strandwall</u>
beachrock	<u>Strandsandstein</u>
lagoon beach	<u>Lagunenstrand</u>
LAGOON REEF FLAT	<u>LAGUNENRIFFPLATTE</u>
a sandy zone in shallow water between the island and the lagoon	<u>lagunenseitige Seichtwasser- Sandzone</u>
lagoon reef margin	<u>Innenriffkante</u>
lagoon reef face	<u>Innenriffhang</u>
LAGOON	<u>LAGUNE</u>
lagoon slope	<u>Innenhang</u>
lagoon floor	<u>Lagunenboden</u>
coral head, knoll, or mound	<u>Korallenblock</u>
Acropora thicket	<u>Acroporenhecke</u>
tall narrow pinnacle	<u>Turn</u>
patch reef	<u>Buckelriff</u> or <u>Korallenbuckel</u>
miniature atoll	<u>Miniaturatoll</u> , an atoll-shaped patch reef with a ring of living corals around a deeper flat cov- ered with sand and dead, broken corals

faro

Faro, an atoll-shaped reef of
greater extension with a dis-
tinct 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.