Seeing Deeply Into the Sea's Biodiversity

BIODIVERSITY HOT SPOTS

Results from the decade-long Census of Marine Life are pouring in, providing insights into what lives where in the world's oceans

0.01

0.77

For the past 10 years, scientists from 80 nations have been creating the Census of Marine Life (*Science*, 2 June 2000, p. 1575; 31 October 2003, p. 773). Derek Tittensor of Dalhousie University in Halifax, Canada, and colleagues have now analyzed more than 6.5 million entries from the census databases, as well as other data for 11,500 marine species to create a map (*top right*) of diversity hot spots. Corals and coastal fishes are most diverse in Southeast Asia, as indicated by the outlined squares in the map, the team reported online 28 July in *Nature*.

Another analysis, drawn from field surveys and literature reviews by 360 scientists, appears in a series in the 2 August *PLoS ONE*. It looks at species diversity in 25 regions of the world and comes up with a global average of what types of species populate the oceans (see pie chart). The proportions of species that inhabit particular waters change according to location.

-ELIZABETH PENNISI

S.A. Tropical Alaska 5925 Arctic Canada 3038 Japan 32,777 West Atlantic 2743 Western Canada 2636 Atlantic Europe 12,270 DISTRIBUTIONS OF BIODIVERSITY South Korea 9900 Tropical East Pacific 6696 California 10,160 Eastern Canada 3160 China 22,365 Baltic Australia Hawaii 8244 Brazil Shelves 9101 U.S. Northeast 5045 Indian Ocean 23,964 Gulf of Mexico 15,374 U.S. Southeast 4229 South Africa 12,715 Humboldt Current 10,186 Caribbean 12,046 Baltic 5865 Australia 32,889 Patagonia Shelf 3776 Mediterranean 16,848 New Zealand 12,780 Antarctica 8200 World Pisces Annelida Echinodermata Tunicata Protozoa **Other Invertebrates** Mollusca Bryozoa **Other Vertebrate** rustacean Algae and Plantlik Platyhelminth

REGIONS STUDIED WITH SPECIES TOTAL

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