

"PRINCESSE
ALICE."

built and equipped for deep-sea exploration. The zoological investigations are under the direction of Baron Jules de Guerne, and under his able editorship the results are being published at Monaco in an excellent style, with splendid illustrations.¹

RUSSIAN OBSER-
VATIONS IN THE
BLACK SEA AND
PACIFIC OCEAN.

The Russian explorations in the Black Sea in the years 1890 and 1891 have shown that the deeper waters of the basin are devoid of life, and the chemical composition of the deposits and of the water of the deeper layers reveals an enormous accumulation of sulphuretted hydrogen and sulphides arising apparently from the deoxidation of sea-water salts by organic matter on the floor of that basin.²

"VITIAZ.

The researches of Admiral Makaroff on board the ship "Vitiaz" in the North Pacific, with reference to the temperature and specific gravity of the sea, form an important and valuable contribution to this department of oceanology.³

AUSTRIAN EXPEDI-
TIONS IN THE
MEDITERRANEAN,
"POLA."

The "Pola" expeditions in the eastern basin of the Mediterranean during the summers of 1890 to 1893, under the auspices of the Austrian Government, have already yielded much new information, and the results that have been published are of great interest, including the chemical investigations of Dr. Natterer regarding the deep-water deposits.⁴

BRITISH EXPEDI-
TIONS AND EXPLOR-
ATIONS.

"KNIGHT
ERRANT" AND
"TRITON."

In 1880 and again in 1882, Tizard and Murray re-explored the Faroe Channel in the "Knight Errant"⁵ and "Triton," and discovered the Wyville-Thomson Ridge separating the areas with different temperatures and faunæ, the distribution of which was such a puzzle in the earlier expeditions of the "Lightning" and "Porcupine." Large zoological collections were made on either side of the ridge, and many of the species have been described in the Challenger Reports. A number of Her Majesty's ships, under the direction of the Hydrographic Office, have in recent years made a very large number of important observations, especially in sounding the ocean and in taking deep-sea temperatures, such as the "Egeria" in the Indian and Pacific Oceans in 1887-89; the "Rambler" in the same oceans in 1888-90. The reports of Dr. Bassett Smith on his dredgings on the Macclesfield Bank, in H.M.S.S. "Rambler," "Penguin," and "Egeria," have for the first time given an excellent idea of the biological and physical conditions prevailing on a submerged coral atoll. The "Investigator" in the Indian Ocean has likewise, under the direction of the Indian Government, conducted many important sounding,

"EGERIA."

"RAMBLER."

"PENGUIN."

"INVESTIGATOR."

¹ See Résultats des Campagnes Scientifiques accomplies sur son Yacht par Albert I^{er} Prince Souverain de Monaco publiés sous sa direction, avec le concours du Baron Jules de Guerne, Imprimerie de Monaco, Fascicules I. to VII. ; also several papers by Prince Albert in the *Comptes Rendus*.

² Andrussov, Preliminary account of deep-sea soundings in the Black Sea, St. Petersburg, 1890; Woeikow, Die Tiefseeforschungen im Schwarzen Meere im Jahre 1890, *Petermann's Mitteilungen*, Bd. xxxvii. p. 33, 1891.

³ Makaroff, Le "Vitiaz" et l'Océan Pacifique: Observations hydrologiques faites par les officiers de la corvette "Vitiaz" pendant un voyage autour du monde, exécuté de 1886 à 1889, et recueil des observations sur la température et le poids spécifique de l'eau de l'Océan Pacifique Nord, St. Petersburg, 1894.

⁴ See Berichte der Commission für Erforschung des östlichen Mittelmeeres, in *Denkschr. d. math.-naturw. Cl. d. k. Akad. d. Wiss. Wien*, Bd. lix.-lxi., 1892-4.

⁵ See Tizard and Murray, Exploration of the Faroe Channel, during the summer of 1880, in H.M. hired ship "Knight Errant," *Proc. Roy. Soc. Edin.*, vol. xi. pp. 638-677, 1882; Deep Sea Exploration in Faroe Channel, by H.M.S. "Triton," 1882, commanded by Staff-Commander T. H. Tizard (Admiralty Blue-Book).