

Carpenter's equatorial current. Thus an abundant floating fauna has been introduced, as Nansen argues, from the west, while the food supplies to support this vast marine population come from the east. "I think that the Siberian current is of great importance," says Dr. Sars, "in conveying a constant supply of nourishment to the pelagic animals of the north polar basin. This nourishment consists of microscopic algæ, chiefly Diatoms, which are found to abound in the superficial polar water of the Siberian Sea, though gradually diminishing in quantity westwards, apparently owing to their being largely fed upon by the various pelagic animals. Indeed, without such a constant conveyance of nourishing matter, there could be no such rich animal life in the polar sea." The dark bands and discolorations exhibited by ice in northern waters are mainly due to these lowly plants (diatoms), though mingled at times with mineral dust, probably volcanic. The ochre, brownish red, or dull green tints seen on the sides and margins of large bergs, floes, and even pans, are found to be due to these vegetable organisms.\* Dr. Wakeham, when in Hudson Straits with the "Diana" in 1897 reports, July 14th, "A great deal of the ice we have seen to-day is discolored and soiled; in some of it we noticed sand and gravel: the most of it, however, is covered with an alga, similar to that we have seen on the ice through the strait." (Hudson Bay Exped. 1897, Report Marine and Fisheries, 1898, p. 17.) Mr. Andrew Halkett, in the report mentioned, figures these plant forms, of which there appear to have occurred more than a dozen species. Professor Cleve, on his first examination of Dr. Nansen's material, distinguished sixteen species, all of which were identical with Kellwan's specimens from Behring Strait, and twelve are unknown elsewhere. Cleve was struck by the fact that two areas so far removed should be the habitat of the same organisms, utterly unlike others from other localities.

Still more remarkable facts are, however, detailed in this report. A minute crustacean, unique in its external characters, a species of *Hemicalanus* was obtained in the very centre of the "polar basin." All previous records of this genus are either in

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\* Dr. Robt. Brown "On the Discoloration of the Arctic Seas." Quart. Journ. Mic. Sci., 1865.