No.99 (March, 2021)

A-587 MASAFUMI NATSUIKE, MAKOTO KANAMORI, MASAMICHI WATANOBE, TOSHIHIKO KASAI and MASATOSHI SATO

Recent occurrences of the toxic dinoflagellate *Alexandrium catenella* (Group I) in Funka and Hidaka Bays

In a monitoring station in Hidaka Bay from 2018 to 2020, the abundance of the toxic dinoflagellate *Alexandrium catenella*(*A. tamarense* species complex Group I, former *A. tamarense*) was observed to be significantly greater than those from 2012 to 2017. Further, we observed a wide distribution of *A. catenella* (Group I) off the coast of Hidaka Bay in early June 2020. In late June, toxin contamination of Yesso scallops and the large occurrences of *A. catenella* (Group I) were detected in Funka Bay, which is connected to Hidaka Bay. Thus, the *A. catenella* (Group I) population developed in Hidaka Bay might be transported to Funka Bay, causing toxin contamination of Yesso scallops.

A-588 MASAFUMI NATSUIKE and MAKOTO KANAMORI

Occurrences of dinoflagellate *Alexandrium minutum* in Tsugaru Strait (Short Paper)

In June 2020, small globular *Alexandrium* species were observed in offshore Shiriuchi and Hakodate Port in southern Hokkaido in Tsugaru Strait. The characteristics of the specimens are triangle-shaped apical pore complex with presence of ventral pore on suture 1' and 4', narrower precingular 6' plate than wide, wider posterior sulcal plate than long, and smooth epitheca and hypotheca. From these morphological features, the specimens are identified as *A. minutum*, a potential paralytic shellfish toxin-producing species. The cells of *A. minutum* were detected at maximum cell density reaching 420 cells L^{-1} in offshore Shiriuchi, and 460 cells L^{-1} in Hakodate Port in June, but were not detected in July and August. Paralytic shellfish toxins from *A. minutum* were not detected in bivalves from the Tsugaru Strait.

A-589　KEIZO YOSHIMURA and NOBUTAKA MICHIBAYASHI

Age determination of Sakhalin surf clam *Pseudocardium sachalinense* based on transmitted light observation in resilifer and main teeth (Short Paper)

We studied a simple age determination technique for Sakhalin surf clam *Pseudocardium sachalinense*, with a known longevity of over 20 years. Using the transmitted light of stereoscopic microscope, easily trackable growth line structures were observed in the resilifer and main teeth, which are the hinge parts of the left shell. The opaque growth lines represent the prismatic layers which are formed annually during the first half of years, as confirmed by previous studies. The first three to five lines were clearly observed in the resilifer, but subsequent lines were difficult to recognize because of the thickness of the resilifer's edge. In contrast, in the main teeth, the first one to two lines were hidden in the root of the teeth, and the following lines until the edge were well-defined. Therefore, the entire growth line numbers were obtained by combining the counts in resilifer and main teeth. In 15 clams, the growth line counts (5 to 37) almost corresponded to the age determined by shell sectioning method for identical clams. We concluded that this new technique can determine the age of clams with good accuracy equal to the shell sectioning method. This technique is easier and applicable to surface-damaged shells.

A-590　AKIYOSHI SHINADA

Near-future predictions of sea surface temperature in the coastal areas around Hokkaido, Japan (Note)

A-591　HIDETSUGU YOSHIDA, HISAYA NII, MAKOTO FUJII, YOSHIFUMI KONNO and SATOSHI KUDOU

Poor catch factors of shishamo smelt *Spirinchus lanceolatus* in the Pacific coast of southern Hokkaido (Note)