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<u>Population of the Commander squid (Berryteuthis magister) in the area of the Northern</u> Kuril Islands: age and life cycle reconstruction

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Commander squid is the most important commercial species of cephalopods in Russian waters. Though this species has been studied for more than a hundred years, age, growth rates, breeding and hatchling seasons of the squids forming commercial aggregations on the main fishing grounds in the waters around the Northern Kuril Islands are still poorly understood. The present study is trying to clarify the issues listed above. The data were collected during two research cruises (May-June and August-October, 2015) in the waters adjacent to the Northern Kuril Islands. Squid were sampled randomly from the catches. Basic morphological characteristics were registered and both statoliths were dissected in all sampled squids. Statoliths were processed for age reading according standard technique, then the age (in days) was assessed. Basing on the age assessments, the hatching dates were back counted for individual squids. The age of squids sampled from the aggregations in the Northern Kuril Islands area ranged during spring ranged from 106 to 240 days; during autumn – from 116 to 299 days. It was found that the squids from spring aggregations were hatched manly in November-December while those from the autumn aggregations were hatched in March-April. Taking into account that the anticipated incubation period for B. magister, is about 6 months, the spawning of spring squid generation could occur in May – June, while the spawning of the autumn squid generation may occur in September - October. Thus, life cycle of squid in the area of the Kuril Islands could be about one year.

Keywords: Cephalopoda, *Berryteuthis magister*, age determination, life cycle, statoliths, Northern Kuril Islands.

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