

Tectonic Evolution of Eurasian Northeast

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The Sea of Okhotsk region occupies the central part of the northeastern margin of Eurasian continent. To the north of the Sea of Okhotsk, the area is composed of numerous microplates and terranes, which moved westward and collided with the Siberian craton in the terminal Carboniferous and earliest Permian. These tectonic blocks are mainly fragments of the North America craton.

In the latest Albian, blocks with continental and subcontinental crusts began to move from the south, from the Pacific side northwestward. In the Senomanian—Campanian time, one of the largest blocks --- the Okhotsk Sea plate, which locally subducted to the north and west, --- was completely formed. The framework of the Sea of Okhotsk was formed by the middle Eocene—Oligocene. At the same time, the subduction was initiated beneath the Kuril—Kamchatka Arc. From the earliest Miocene, the Eurasian continental margin started to experience destruction, which was expressed in spreading in the Komandorsky basin of the Bering Sea and in the Japan Sea. The structure of this region is shown in the Tectonic Map of the Sea of Okhotsk Region.