

## Sedimentation and basin evolution of the Upper Cretaceous to Paleocene forearc basin sediments in Northeast Japan

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Cretaceous to Paleocene sediments are distributed across a 200 km-wide and 1400 km-long belt in Northeast Japan to Sakhalin. Twenty-seven stratigraphic sections including land-based and offshore drill holes (12) and surface sections (15) are correlated to delineate the sedimentary history and basin evolution of the Yezo forearc basin. Two second-order shallowing-upward cycles are recognized in Hokkaido but are obscure in north Honshu. Shallow-marine to paralic sediments of the first cycle (early Albian to Turonian) are represented by the Mikasa Formation (late Albian to Turonian) as the western marginal facies, while the eustatic curves (e. g. Haq curves) reach the highstand maximum at the late Cenomanian. The Campanian to Maastrichtian shallow-marine and non-marine facies of the second cycle (Coniacian to Maastrichtian) are characterized by the Hakobuchi Group in Hokkaido and its correlatives in north Honshu. This large-scale shallowing may have reflected directional changes of the Izanagi-Kula plate motion near the early Campanian. The uppermost Maastrichtian to Upper Paleocene is possibly absent everywhere in the basin. The shallow-marine to non-marine facies often show several third-order depositional sequences with upward-coarsening facies successions. They may have been controlled by global eustasy even in an active-margin setting, since the stacking patterns of sequences and the timing of sequence boundaries appear considerably concordant with the oscillation patterns of the Haq curves.