

Sakhalin I & II development and Steller's Sea Eagle

Every summer since 2000, the Institute for Raptor Biomedicine Japan in partnership with Moscow State University, has conducted on-the-spot surveys of the breeding situation and behavior of Steller's Sea Eagles (*Haliaeetus pelagicus*) in northeastern Sakhalin. In 2003, from 16 July to 6 August, we conducted the fourth survey.

As a result of these surveys, we have recognized that development (Sakhalin I and Sakhalin II Project) may have serious impacts on the survival of Steller's Sea Eagles in this area.

We also believe that these acts of development violate the Japan-Russia Migratory Birds Act, whose aim is to protect endangered species such as Steller's Sea Eagles.

The situation about which we are apprehensive is as follows;

Sakhalin I

- We visited the Sakhalin I development site in the Chaivo Bay (entered by permission at checkpoint). We recorded current situations of development, including large-scale infrastructure constructions such as facilities, roads, and a big iron bridge over Chaivo Bay, an enormous oil rig, and so on. The development work was going on around the clock. The site was lit up with massive lights at night, and large noises rang through the area constantly. It was also confirmed that numbers of workers and large vehicles have been going in and out of the area being very close to the Steller's Sea Eagles' breeding ground.
- Sakhalin -I has a plan to build a pipeline connecting the iron bridge and the oilrig, which both are currently under construction on the sand spit of Chaivo Bay. Trees were already cut down, forming a path of two meters width, for the pipeline route. We discovered a nest of a Steller's Sea Eagle that bred on top of a tree located only 6.5 meters away from the center of the route. We tagged the nestling in the nest. The nest was situated in the distance of 400 to 500 meters from the oilrig under construction.

We learned that the plan is to remove the surface soil of the area within 20

meters both ends from the center of the pipeline route. It means that the nesting tree is doomed to be cut down for sure.

- We also surveyed another breeding nest situated on about 200 meters away from the construction sites for the buildings, roads and the bridge under construction in the Chaivo Bay area. A nestling was identified in the nest, while three female officers in charge of environmental conservation at ABB were present.
- Even another breeding nest was located in about 600 meters away from the construction site. Besides these, we could identify many breeding nests of the Steller's Sea Eagles on and around the development site.

Sakhalin II

- At Chaivo Bay, the center of oil and natural gas development, the Sakhalin II EIA reports the existence of only five pairs of Steller's Sea Eagles. However, we confirmed that at least three times that number (15 pairs) have bred this year (including failures). Due to time and access constraints, we could not survey the entire bay area, so we suppose that in fact there are even more breeding eagles living there. Further, there are many young non-breeding eagles living in the area.
- In the southern area of Piltun Bay, where the Sakhalin II pipelines are scheduled to be laid, we recognized and recorded Steller's Sea Eagles (within the bay) and several whales thought to be Gray Whales from their characteristics (on the open sea beach).
- Visited the Sakhalin II road construction site in the western area of Lunskeye Bay (entry by permission at checkpoint). We recorded large-scale deforestation, destruction of marshland, large volumes of muddy water runoff from road to river during rains, and so on.

We understand from surveys completed until now, that there are about eighty pairs breeding in the bay areas of northeastern Sakhalin, and we have found more than 200 nests. Also, including mature birds not involved in breeding, subadults, and juveniles, it is estimated that in summer, at least 250 Steller's Sea Eagles are living the coastal area of the bays (including the river mouth areas of inflowing rivers). We infer from survey results up until now that there are about 30 pairs of Steller's Sea Eagles living in Chaivo Bay, and we have confirmed even more subadult and juvenile birds.

These eagles rely mainly on the fish in the bays and rivers for food. This is a very important food source, particularly for breeding eagles raising nestlings, and so it is clear that environmental damage caused by development and accidents involving discharge of oil, etc. will have a huge impact on the survival of the species.

It is thought that the following will influence the eagles; direct damage to nesting environment and food sources' environment by development, noise, nighttime illumination, disturbance of breeding by people and vehicles, impact of oil spill accidents on food sources, and so on. Also, it is essential to consider the same concerns with regard to non-breeding pairs, subadult and juvenile birds, etc.

Our tracking investigation shows that at least 80% of the eagle is coming and going to Japan and Sakhalin . Steller' s Sea Eagles are one of the species covered by the Japan-Russia Migratory Birds Act. It is possible that the oil field development in Sakhalin will have a serious impact on their existence (particularly on breeding). There are many acts of current development that already have contravened the Japan-Russia Migratory Bird Treaty.

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A nest of Steller's Sea Eagle near the Sakhalin 1 exploitation site.



A nest of Steller's Sea Eagle (→) , situated at 6m side to the center line of the Sakhalin 1 pipeline route (→). All vegetation at 20m both side from the center line will be completely cut off. (Chaivo Bay)



An eaglet on the nest above.



Pipelines of Sakhalin 2 project near the nest sites of the Steller's Sea Eagle.



Pipelines will cross over more than 1000 rivers. The destruction of the source of eagle food (salmon) will easily happen.