

Protection and Recovery Program for the Iriomote Cat

(Prionailurus bengalensis iriomotensis)

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Environment Agency

Ministry of Agriculture, Forestry and Fisheries

I. Objectives of the Program

The Iriomote cat (*Prionailurus bengalensis iriomotensis*) is a feline species found only on Iriomote Island in Okinawa Prefecture. The total population of this species is estimated to be about 100 in this habitat, mainly in the lowland areas of the island. This species was confirmed to represent a new species relatively recently, in 1967*. Subsequent surveys do not suggest precipitous population declines.

However, given the restricted range and small population, many factors may affect the steady survival of the current wild population. These factors include the progressive shrinking and fragmentation of the natural habitat in the lowland areas critical to its survival, frequent roadkills, and the risks of introduction and outbreak of contagious disease.

The objectives of this program is to ensure the stable survival of the cat in a natural state by monitoring and gathering information on the status of the species; maintaining and improving the environmental conditions necessary for the species; and mitigating and removing factors that pose threats to the species.

II. Program areas

Mainly on Iriomote Island (Okinawa Prefecture)

III. Overview of the Program

1. Understanding the species status and monitoring

The following surveys will be undertaken to appropriately and effectively implement the program, based on regular observations of the species status.

* The Iriomote cat was formerly treated as a distinct species. However, it is now considered to be a subspecies of *Prionailurus bengalensis*.

(1) Ascertaining current distribution on the island

Given the scarcity of information on current distribution and the difficulty of gaining access to much of the species habitat, including inland areas, the south coast, and Sakiyama Peninsula, the program will seek to gather more specific information on species distribution, especially in the preceding areas, using trail cameras and field trace assessments. The program will also seek to continuously gather information on distribution changes on the island.

(2) Monitoring the status of the species

The program will monitor and accumulate information on the status of this species, including data on the number of individuals, home range, breeding, migration, and dispersal. The survey plots will be set based on what is known about the distribution of the species. Tools such as trail cameras and radio tracking will be used to identify individual animals and to continuously track and monitor individual animals.

Emergency surveys and other countermeasures will be implemented in the event of alarming changes in the population.

(3) Gathering information on the health of individual animals

The program will also assess the health of individual animals through pathological and parasite examinations (animals dead, rescued, or captured for study) to monitor the introduction and outbreak of contagious diseases. Should these studies identify a pathogen or contagious disease that potentially threatens the survival of this species, plans call for implementing emergency surveys and other countermeasures.

To accumulate additional biological data, dead animals will be collected and preserved appropriately, where possible. In addition to pathological and parasite examinations, the survey will collect and analyze information to shed light on the genetic diversity of this species.

2. Habitat maintenance and improvement

The stable survival of this species in its natural state will require efforts to maintain the health of the entire ecosystem, including various prey animals and the food chain, in which this species is the apex predator.

For this reason, efforts will seek to preserve favorable conditions in areas where environmental conditions suit the species. In areas where changes in land use or agricultural management have degraded species habitat and affected maintenance of the population, efforts will seek to restore or improve habitat conditions, according to the degree of degradation, to render them suitable for feeding, resting, and breeding, as well as migration, dispersal, and contact between individual animals.

The following specific measures will be undertaken based on the current species range and habitat:

(1) In areas that feature ideal conditions for this species, and where good living conditions are observed, efforts will focus on maintaining and/or improving the habitat as necessary. These regions stretch from the coastal areas and estuaries to lowland areas comprised of a complex stream and valley topography. In these regions, efforts will seek to preserve or restore the continuity of the natural habitat, which tends to feature diverse plant species in lowland forest environments: mangroves and powder-puff trees (*Barringtonia racemosa*); wetlands including rice paddy fields; hinterland forests of subtropical Castanopsis and oak forests, etc.; and an abundant supply of prey animals, including the white-breasted waterhen (*Amaurornis phoenicurus*), Kishinoue's giant skink (*Plestiodon kishinouyei*), and frogs.

(2) In regions where the species occurs in habitat already degraded but still required to maintain the population on the island from the standpoint of the expansion of suitable habitats and the migration and dispersal of individual animals, efforts will focus on improving or restoring habitat. Based on natural and social conditions, wetlands will be improved where appropriate, and vegetation unsuitable for species habitat remediated. Such areas include abandoned cropland covered with Chinese silver grass (*Miscanthus sinensis*) and Cogongrass (*Imperata cylindrica*) and abandoned grassland for grass sampling and grazing. Additionally, in open spaces such as farmland falling within the habitat range, efforts will focus on maintaining and cultivating forests along rivers and between farm plots to ensure the routes needed by this species for migration, dispersal, and contact between individuals.

These program activities will account for the ecological characteristics of this species and the effects of various activities on biological communities of this and other species. These activities will proceed based on a long-term vision, with assessments of current methods and corresponding readjustments. In the process, the program will seek to establish local frameworks for cooperation.

Where land is used or business activities conducted within the species habitat and surrounding areas, the program will seek to ensure the conditions needed for the survival of this species, including important feeding grounds and migration routes.

3. Semi-wild breeding

Due to the cat's solitary habits and extensive range in forests, little is known about breeding habits or requirements in the wild. Improving on this understanding poses major challenges. Progressive shrinking or subdivision of habitat and range, and the introduction and outbreak of contagious disease may affect the sound reproduction of this species.

To better understand breeding habits and to establish captive breeding techniques, the program will conduct studies involving semi-wild captive breeding in an outdoor rearing facility based on the natural environment and located within the species habitat on the island.

Here, animals will be collected by capturing wild specimens or by interning rescued sick and injured animals. The field individuals will be captured with a focus on minimizing the effects on current wild population; for example, by avoiding capturing residents of breeding age.

To prepare for sudden declines in the wild population due to the introduction and outbreak of a contagious disease, the program will also assess the necessity of maintaining and expanding captive population.

4. Other

(1) Measures to prevent roadkill incidents

To minimize road kill incidents, the program will collect reports of sightings on or along roads. In areas where road kills are estimated to be relatively common, the program will implement measures in partnership with relevant organizations, including efforts to improve facilities and install warning signs for motorists.

(2) Rescue and rehabilitation of sick and injured individuals

The program will prepare and enhance systems for the rescue and rehabilitation of sick and injured individuals. Individual animals that recover to a stage that would allow them to survive in the wild will be, in principle, returned to their natural habitat. At the same time, recovered individuals will be assessed for suitability if the semi-wild captive breeding program described in Item 3 above is in need of animals.

(3) Measures to prevent predation on poultry

To minimize predation by this species on chickens and aigamo ducks and species dependence on anthropogenic food sources, which may disturb the mode of life of this species, the program will investigate measures to prevent these incidents and implement appropriate countermeasures: for example, installing invasion prevention fences.

(4) Patrol of the habitats

Habitats will be monitored to safeguard against adverse effects on the conditions required for species survival and reproduction.

(5) Preventing the impacts of alien species

The program will monitor the invasive status and impacts of feral dogs, feral cats, and other invasive species that may compete against the species or pass on infectious disease. It will also investigate various preventive measures, including comprehensive management of domestic animals and their removal from wild habitats. These countermeasures will be implemented as necessary.

Since domestic cats are an especially likely source of infection and disease, the program will examine the domestic cats found on the island at periodic intervals to identify the presence of contagious pathogens and

implement appropriate countermeasures if these examinations confirm the presence of such a pathogen or the onset of a contagious disease threatening the survival of this species.

(6) Promotion of education and awareness-raising activities

To achieve effective progress with the program, understanding and cooperation is crucial on the parts of the parties carrying out various business activities, relevant administrative organs, and the citizens including local residents. The program will promote public awareness on the status of the species, the need for protection, and the progress of the protection and recovery program. These activities will help foster better understanding and cooperation in protecting the species. The awareness-raising activities are expected to take place at public facilities in relevant areas so as to facilitate the development of voluntary conservation activities of the community.

(7) Consolidation of collaboration for effective promotion of the program

When implementing the program, efforts will seek to facilitate cooperation and collaboration among the national government, local governments of Okinawa Prefecture and Taketomi Town at all levels, experts with expertise on biology, ecology or other aspects of this species, as well as local residents in the species' habitats and adjacent areas.