

**Japanese IAS law and its practical implementation for addressing intentional animal imports**  
 Current National Practices and Available Tools for Pre-import Screening of Animal Species in  
 International Trade  
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**Introduction**

Japan is an island country that has unique ecosystems, especially small islands in south part of the country, namely Ryukyu islands or Ogasawara (Bonin) islands. They have high ratio of endemic species and so those ecosystems are very fragile easily influenced by invasive alien species.

On the other hand, Japan is a country of mass importation of living animals. In 2003, for example, 73million live vertebrates were brought into Japan (see table, Ministry of Finance). Also, as the Japanese economy is strongly sustained by international trade, it is thought that many species are unintentionally introduced into Japan along with imported goods and containers.

Year/head	2003	2007
Mammals	636,337	335,417
Birds	121,114	35,346
Reptiles	713,415	442,550
Amphibians	28,912	4,571
Ornamental fishes	71,073,056	62,928,391

Table. Number of imported live animals into Japan  
 \*based on declarations submitted to the Customs  
 \*mammals and birds not include livestock

Public awareness of the risk relating to invasive alien species had been rapidly raised by largemouth bass (*Micropterus salmoides*) and raccoon (*Procyon lotor*) since the latter half of 1990s. Scientist and conservationist insisted necessity of regulation controlling import of invasive alien species because existing legal framework such as Plant Protection Act or Domestic animal infectious diseases control Act did not cover the damage to wild fauna and flora.

**Framework of the Invasive Alien Species Act**

The Invasive Alien Species Act was approved in 2004 and entered into force in July 2005. The Act defines those alien species that are recognised or feared to cause the damage to ecosystem human safety, and agriculture, forestry and fisheries as "invasive alien species (IAS)". The competent ministers have responsibility to estimate and decide, based on scientific information, which alien species should be designated as IAS.

The purposes of this Act are to control IAS properly and to prevent damage to ecosystem and so on. Concerning live animal imports, main points of this Act are 1) A ban on various actions with regard to IAS, 2) Judgment of Uncategorised Alien Species before their importation.

The first point is to ban various actions regarding IAS. Raising, planting, keeping or transporting IAS will be prohibited unless competent ministers give permission. Permission is also a prerequisite for importing IAS. Discarding IAS into the wild will not be allowed at any time.

The second point is judgement of Uncategorised Alien Species (UAS) before their importation. UAS are alien species which are suspected of being IAS. UAS are basically designated in groups of species which same genus or family as IAS because there are possibility of similar ecological impacts as IAS. If taiwan macaque (*Macaca cyclopis*) designated as IAS, all the species included in genus *Macaca* designated as UAS as a rule.

According to this Act, before importation of UAS into Japan, importers must notify to competent ministers of their intention with information on ecological properties of the targeted UAS. Importation of the UAS will be restricted until the estimation is completed. After the estimation, UAS posing risks of damage will be designated as IAS immediately, while UAS posing no risks will not be regulated by this Act. The full text of the Act and the basic policy is available on the website below: <http://www.env.go.jp/en/nature/as.html>

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## **Implementation of the Act especially in the field of risk assessment**

### **1) Selection of IAS**

The first selection of IAS was started in 2004. The act provides competent ministers should consult to experts on properties of living organisms when they designate IAS. So, general expert meeting and six working groups to deal with each group of alien species (i.e. mammals and birds, reptiles and amphibians, fishes, insects, invertebrates, and plants) had been established and discussed which species should be designated as IAS. Moreover, two special working groups have been set up in order to discuss the selection of the largemouth bass (*Micropterus salmoides*) and the large earth bumblebee (*Bombus terrestris*) as IAS. These two species are already introduced into Japan and their designation as IAS caused concerns for the sports fishing industry and the farming industry.

Each working group had meetings and made recommendations of designation and the general expert meeting decided the final recommendation to competent ministers. After the public consultation procedure, competent minister finalized the decision. During the public consultation of the first round of designation, more than 110,000 comments was received from the general public; most of them were against designation of largemouth bass as an IAS. Newspapers and other media reported this conflict widely and consequently public awareness of IAS act had been rapidly raised.

In the process of the first round (2005) and second round (2006) of designation of IAS, proposed species was selected by picking up, with the recommend of the said academic experts, alien species whose adverse effects are already been reported by scientific publications from around the world. As a result, 80 different types were selected as IAS. The list of the regulated species is available at: [http://www.env.go.jp/nature/intro/siteisyu\\_list\\_e.pdf](http://www.env.go.jp/nature/intro/siteisyu_list_e.pdf)

### **2) Estimating invasiveness of alien species**

There are two cases of estimating alien species whether it is appropriate to designate IAS or not. The first case is the selection of IAS describes above, and the other case is estimating UAS species which is notified by the importer the intention of import. So far, 15 species (Reptiles 7, Amphibians 6, Insects 2) had been notified by importer and competent minister judged whether they should be designated as IAS or not.

Concerning these 15 species, there were no reports or information of adverse effects on ecosystem or agriculture in scientific publications from around the world. Based on limited information, namely original range and present range of said species, expert meeting reached the conclusion that the risks caused by UAS should be estimated by the possibility of establishment in any part of Japan following the view of precautionary approach.

The recommendation of the expert meeting was criticized through public consultation that risks should be estimated not only by possibility of establishment to a part of the country but by purpose, amount, and frequency of importation. But UAS were already categorized in suspicious group (genus or family) because of undeniable possibility of damage to ecosystems. We think there would be no other practical ways to estimate risks under limited information. Though there remains question of how to categorize UAS is in a reasonable way.

Among 15 species, 14 were notified for the purpose of pet trade, and 1 was for research. Designation of IAS means prohibit of commercial use of those species. Importers of 14 species gave up importation.

### **3) Considering benefits of Alien Species**

Section 2.3 of the basic policy of this act states that alien species that cause damage or pose risks

shall be selected as IAS, considering social and economic impacts that arise from designation.

Designation process of large earth bumblebee provides case of how to consider economic impacts caused by designation of beneficial alien species. Large earth bumblebee has been used widely as useful pollinator in greenhouses since first commercial introduction in 1992. In 2003, about 70,000 hives were distributed in Japan and 43% of greenhouse tomato farming used this bumblebee for pollinator. On the other hand, reports of escaping from greenhouses had been increasing, competition to native bumblebee or cross breeding to closely related species were suspected.

To deal with this economically important species, special working group including scientists researching bumblebee, importers, member of farmers association was established and discussed many times. After the first round of discussion, it was recognized that there are few clear information about evidence of impact to ecosystem and possibility of appropriate control measures preventing risk. During one year suspension of discussion, some researcher arranged data of impact to native species and other researcher studied workable setting of net preventing escape of bumblebee. Based on new scientific data, bumblebee working group restart discussion and conclude there is clear evidence of impact to native bumblebee and appropriate treatment could control risks of this species. Finally earth bumblebee designated as IAS and farmer continue using this species on condition.

This process proved the importance of mutual understanding of benefits, risks and practical way to reduce risks among stakeholders. Fortunately in this case, useful scientific data could be arranged in a short time because earth bumblebee had been used widely in Japan. Concerning beneficial species for industry, it is essential for judgement of IAS to arrange scientific and intelligible data and to have cool discussion among stakeholder on individual species.

Additionally, now there are about 12,000 farmers having permission from ministry of the environment using this species, the administrative cost for checking 12,000 applications and following applicant is a burden for government.

## **Conclusion**

Through the implementation of IAS act, risk screening process for animal imports in Japan is divided two steps. 1st process is designation of UAS. Species in the same group (genus or family) as IAS are designated as UAS almost automatically and imports of UAS are suspended. 2nd screening process is designation IAS from UAS. If importer notifies the intention of imports of UAS, competent ministers have to judge whether should be designated as IAS or not.

If said species brings economical benefit to some industry, it is necessary to establish special working group to discuss the risk of the species and control ways to reduce that risks among stakeholders. In this stage, socio-economic impact should be considered for the first time.

In 2007, live animal imports into Japan become smaller than before (see table). One reason of this change is intensification of animal quarantine especially against avian influenza. The other reason seems to be the enforcement of IAS act. Raising public awareness of the risks of importation brings this change. There are some challenges to prevent adverse effect by animal import. Preparing effective measures against unintentional introduction of IAS and UAS is essential. IAS act does not cover the risk of infectious diseases to wild animal. And to cover this problem, it will be necessary to revise existing act. But it is difficult for limited staff to check various kinds of living organisms or goods. People should realize dangerous situation of Japanese economy strongly sustained by international trade.

## **References**

Ministry of Finance. Trade statistics of Japan [http://www.customs.go.jp/toukei/info/index\\_e.htm](http://www.customs.go.jp/toukei/info/index_e.htm)