

**Eradication activity of an alien squirrel
Callosciurus erythraeus in the Uto Peninsula,
Kumamoto, southwestern Japan**

Masatoshi YASUDA

Kyushu Research Center, Forestry and Forest Products Research
Institute, Japan (myasuda@ffpri.affrc.go.jp)

An alien squirrel, the Pallas's squirrel *Callosciurus erythraeus*¹, was introduced to the western part of the Uto Peninsula, Kumamoto, southwestern Japan in 1993. The distribution area in March 2010 was estimated about 25 km², accounted for 28% of the total area of the peninsula (90 km²). The primary industry, fruit production, is a major factor in the area. Although the squirrels have damaged citrus and other fruits since 2004, researchers recognized it in 2008. Local governments started a population control action near agricultural lands under the Wildlife Protection and Proper Hunting Act in June 2009 and then launched an eradication program under the Invasive Alien Species Act in April 2010. I have been involved in these activities as a scientific adviser since 2009. On the fiscal year basis (April-March), the number of squirrels trapped by cage-traps was 141 ind. in 2009 and 3112 ind. in 2010, and in the first half of the fiscal year 2011 decreased to 61% of the same period of the previous year, implying that the squirrel density decreased. I considered that an incentive (800 yen per animal) strongly promoted the trapping activity by local hunters and fruit producers in 2010 and that campaigns using

local newspapers and televisions contributed to reduce the resistance against the eradication activity. Euthanasia using carbon dioxide gas was applied to the trapped animals. Results of the investigation of reproductive condition (30-40 females monthly) suggest that the pregnancy rate fluctuates seasonally, high in summer and low in winter (range 10-56%). The number of embryos was 2.1 on average (range 1-4). In order to eradicate the squirrel from the area, a new trapping method applicable to the populations at low densities should be developed as soon as possible, because of the high population growth rate of the species²⁾.

1) Ikeda, H. et al. (2011) Origin of *Callosciurus erythraeus* Introduced into the Uto Peninsula, Kumamoto, Japan, Inferred from Mitochondrial DNA Analysis. *Mammal Study* 36:61-65.

2) Guichón, M. L. & Doncaster, C. P. (2008) Invasion dynamics of an introduced squirrel in Argentina. *Ecography* 31:211-220.