Effort of eradication of invasive mongoose for conservation of biodiversity in the Ryukyu Islands, Japan

Fumio Yamada[a], Shigeki Sasaki[b], Nobuhiko Kotaka[a], Takamichi Jogahara [c], Makoto Asano [d], Go Ogura [e], Takuma Hashimoto[f] and Shintaro Abe[g]

[a] Forestry and Forest Products Research Institute (FFPRI), JAPAN

[b] Yokohama National University, JAPAN

[c] Okayama University of Science, JAPAN

[d] University of the Ryukyus, JAPAN

[e] Gifu University, JAPAN

[f] Japan Wildlife Research Center, JAPAN

[g] Ministry of the Environment, JAPAN

The small Indian mongoose (*Herpestes auropunctatus*) is one of the worst invasive alien species because of affecting negative impacts on ecosystems in the Pacific and Indian Oceans, the Caribbean and Adriatic Seas, and to continental South America and Europe. In Japan, it has also been causing damages on native species of the Ryukyu Islands. During 2005-2014, eradication campaigns against the mongoose are enforcing by the Japanese government as a model for conservation. To achieve the eradication of the mongoose on the islands, we are developing the techniques and control strategy. For detection technique, evaluation of detection techniques, such as censor cameras, dogs, hair traps are examined in low-density area after intensive trappings, and DNA techniques are examined to identify individuals and sex of mongoose. For kill or capture technique, a new poison and some of attractants are examined. For more development of eradication technique, we start some studies on immune infertility, soft fencing, and avoidance of bi-catch between mongooses and non-target animals, such as endangered rodents and birds. This study was supported by the grants from the 2009-2011 Biodiversity technology development fund and from the 2010-2013 Development of eradication techniques of invasive species funds by the Ministry of the Environment Japan.

Corresponding Author:
Dr. Fumio Yamada
Forestry and Forest Products Research Institute (FFPRI)
Matsunosato 1, Tsukuba, Ibaraki, 305-8687 JAPAN
e-mail fumio@ffpri.affrc.go.jp