

--	--

	2019 12 18
--	------------

	Development of auto-sampling machine for sanitary pest and surveillance
--	---

	International Conference on Life Science and Biological Engineering
--	---

	Chihiro TAYAMA (2), Yuki ARAI (1), Kouki KAWATA, Keigo OZAKI and Yuichi Hasuda
--	--

Sanitary pests such as mosquitoes and flies are known to transmit infectious diseases. According to the WHO reports in 2014, more than 720,000 people are killed by mosquitoes all over the world every year. Dengue fever which occurred in Yoyogi Park spreaded rapidly throughout Japan in August 2014, and disrupted society. The range of mosquito distribution is expanding due to global warming, and mosquito surveillance is conducted throughout Japan every year.

Human decoy trap is widely used for mosquito surveillance. This trap has two problems, one of the problem is a risk that researchers get infected the mosquito-borne infection and the other problem that surveillance is prolonged. So researchers have heavy burden. Therefore, there is a great demand for unmanned and automated surveys.

In this study, an automatic sampling machine that can be collected every certain time was developed for the purpose of unmanned and automated surveillance of sanitary pests.

(a) *Aedes albopictus* (b) *Armigeres subalbatus* (c) *Culex orientalis*  
(d) *Culex pipiens pallens* (e) *Culex sasai*

Figure9. Mosquito captured in this study