

# FRIM ready to assist in firefly conservation

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14 March 2018 (Wednesday) – Forest Research Institute Malaysia (FRIM) is ready to assist any state government in the conservation of firefly habitats, an iconic attraction in Malaysia.

Based on the research project conducted by the FRIM Entomology Branch, fireflies of the genus *Pteroptyx* (e.g. *Pteroptyx tener*), a synchronous firefly, are found in natural riverbank vegetations.

Director General (DG) Dato' Dr Abd Latif Mohmod said "FRIM has the expertise to help save firefly populations through the conservation of the natural ecosystems which support the fireflies and ensure the sustainability of its food sources."

In order to protect the natural habitat, a buffer zone of at least 50 metres on both sides of the river should be established to curb occurrences of encroachment and pollution.

"The composition of vegetation species in the buffer zone needs to be studied and there is a need to do enrichment planting of sago, berembang and nipah trees," he said.

Abd Latif said FRIM welcomes the cooperation of any state governments and local authorities in the firefly conservation efforts. He proposes the setting up of a FRIM firefly research centre in areas known to have fireflies, for studies to be conducted to ensure the conservation of the natural habitats and ecosystems for the long-term sustainability of the firefly populations.

"Nearly 60% of their lifespan (the egg, larva and pupa stages) are spent in shady vegetation by the river where snails, which are their food source, are also found," said Veronica Khoo, FRIM Entomologist.



Abd Latif: Changes affecting the natural habitat will cause a decline to the firefly population.



Fireflies exhibiting synchronous flashing.

In 2006, she said, FRIM started monitoring the firefly populations every month using an eco-friendly technique consisting of night photography at seven locations, within the stretch of 1.6-kilometre along Sungai Selangor between Tanjung Labak and Kampung Sepakat. The data obtained showed a decline in the firefly population in Kampung Kuantan by 42% from 2007 to 2016. The main factor contributing to this may be the changes affecting the natural riverside ecosystems.

Abd Latif also commended the Selangor State Government in setting aside over 1,000 hectares along Sungai Selangor as a firefly protection zone in 2009. The state also took the initiative to purchase a plot of degraded land in Tanjung Beluntas, for rehabilitation purposes. FRIM was also involved in replanting suitable vegetation to rehabilitate the area with hopes to revive the firefly breeding habitat.

“FRIM is ready to assist in the conservation of habitats and firefly populations not only in Selangor but also throughout the country,” Abd Latif added.

5 (100%) 5 votes



Firefly larva feeding on a snail.



The natural habitats for firefly larvae and snails should be conserved.