

The investigation of ecology on the Hsiukuluan river and prevention studies on the damage of rice from wild ducks¹

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summary

Five species of migrant bird-wild ducks, namely *Anas crecca* (79.0%), *Anas poecilorhoncha* (19.6%), *Anas acute* (0.6%), *Anas clypeata* (0.4%) and *Anas platyrhynchos* (0.4%) were found in Hsiukuluan and Haulien river. The wild ducks were found from September and the population reached highest during next February and March, then decreased gradually monthly. Some *Anas crecca* and *Anas poecilorhoncha* stayed and reproduct till June. Wild ducks like to stay in river spits where are abundant of miscathus or lower plants, or near stream and shoal where have rich plankton and weed those may be their foods In recent years, the wild ducks begin to attack rice crop and aquacultural fish, shrimp and clam. Just the first and second rice crop sown, the wild ducks invaded paddy field at night and dawn. The rice seeds were eaten, and seedlings were torn up by the roots. The residence occupied and food sources destroyed by people considered to be the major reason for the change of feeding behavior of wild ducks. Six repelling methods that is repellent belt, evil eye, shell crackers, flash repellent machine, repellent flag, ultrasonic repellent machine, were evaluated in the field. The repellent belt, shell crackers and flash repellent machine had the best repelling effect on wild ducks, and will be recommended to drive the wild ducks away from the paddy field.

(Key words: Hsiukuluan river, Investigation of ecology, Damage of rice, Wild ducks)

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