

Wissanurak Sribandit 2007: Some Ecological Aspects and Marketing of Weaver Ant (*Oecophylla smaragdina* F.). Master of Science (Forestry), Major Field: Forest Biology, Department of Forest Biology. Thesis Advisor: Associate Professor Decha Wiwatwitaya, D.Agr. 135 pages.

Objective was to study ecological aspects and marketing of weaver ants to develop sustainable ant farming. The ecology was studied by direct observations at Sakaerat Environmental Research Station, Forestry Student Training Station and a neem plantation in Wang Nam Kiauw district, Nakhon Ratchasima province, Thailand. Marketing was studied in parts of Pak Thong Chai and Wang Nam Kiauw districts by interviewing local ant collectors and traders.

The results showed that the weaver ants preferred nest building open vegetation, large canopy trees or bushes with strong stems, leaves with a smooth surface, medium sized leaves and smooth stem bark. Plants that can support food were also preferred by the ants. In natural forest an average colony 19 nests and 4 trees. The survey also showed that sexual brood is only present in the nests from January until May. The production of sexuals is therefore constricted to the dry season and probably depend on low humidity. The ants were observed to feed on many different arthropod species, mostly insects. Competing ant species can threaten the weaver ants if they reach high population sizes. The marketing analysis showed that collection and trade of weaver ants take place only from January until May. The market price on weaver ants ranged between 80 and 300 Baht per kilogram. Most ant collectors harvested ants from the natural forests they used bamboo sticks with net baskets to harvest ants and used powder to separate worker and larvae. An increasing number of ant collectors means that competition was increasing and furthermore forest fires may decrease the ant population. Most collectors can easily sell their harvest on the market.

The results of this study may contribute to the development of sustainable ant management and lead to applied ant farming in the future which may help to generate higher incomes among poor people.

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Thesis Advisor's signature

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