

A Study on the Bionomics of Glyptapanteles liparidis

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Abstract *Glyptapanteles liparidis* (Bouché) has 4 generations a year in northern China and parasitizes *Lymantria dispar* in its first two generations. The hosts of the later two generations are Pine Caterpillars. It overwinters in the overwintering larvae of *Dendrolimus* spp.. The lifespan of egg-larval stage is about 25~35 d, pupal stage 6~8 d, adult stage of ♀ 8~14 d, ♂ 5~10 d. The adults come out from cocoons consistently and have a high rate of emergence. The 2nd-instar larvae of the hosts is the best fitness stage for parasitization. It has a high reproduction rate of 636 ± 176 per female and the maximum 953. Cold-stored pupal stage cocoons have no effects on the emergence, but when cold-storage takes place in the prepupal stage, the rate of emergence can be reduced obviously. All the adults which emerged from the cold-stored cocoons have a tendency of shortened lifespan. Both the rearing density and the diet for adults are important factors for its longevity.

Key words *Glyptapanteles liparidis*, bionomics, temperature, cold-storage

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“日本落叶松硬枝扦插技术研究” 达到国际同类研究领先水平

中国林科院林研所主持的“日本落叶松硬枝扦插技术研究”经3年协作攻关取得了突破性进展,近日在北京通过鉴定。

日本落叶松属于扦插生根困难的树种。以往国内外专家只在嫩枝扦插生根研究方面取得较好的结果,而硬枝扦插生根至今未能圆满解决。于1990年世界银行贷款国家造林项目专设“日本落叶松硬枝扦插技术研究”为“落叶松丰产林培育研究与推广”的子课题。

该项研究摸索出一套适于日本落叶松硬枝扦插生根技术及插条苗当年换床培育技术。初步筛选出PL₁、PL₂扦插生根剂,使三年生日本落叶松扦插生根率达96%以上、换床移栽成活率达97%以上,解决了一年扦插繁殖两次的生产技术。

专家们认为,研究设计合理,数据可靠,在日本落叶松扦插条取材性质、扦插苗换床以及扩大繁殖系数上,均处世界同类研究领先地位。

日前,该研究成果已引起国内外同行专家关注。今年4、6月份联合国粮农组织世行官员及英国林木育种专家分别到育苗现场考察,英国专家还提出了与我国合作推广该项技术的要求。

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