sign of movement from the siricids. Attempts by *Rhyssa* to oviposit through brown paper covering small tubes in which *Sirex* larvae were placed were recorded, but no successful parasitism resulted.

It was therefore concluded that the workings of adult and larval *Sirex noctilio* attracted *Rhyssa persuasoria,* that the attraction was an olfactory one, and that it was due in part to the presence of the symbiotic fungus but mainly to some secretion emanating from both adult and larval *Sirex* and particularly potent in the larval wood-frass.

The Searching Ability of *Rhyssa persuasoria*

Logs containing woodwasp larvae in various stages of development were subjected to attack by mated female *Rhyssa persuasoria* all of about equal size. The oviposition points were marked and these were later cut open and examined.

It was found that the number of successful attacks varied from one in every 5–12 insertions of the ovipositor. The percentage of larvae parasitised varied from less than 1 to 34.

Rarely were larvae younger than the fourth instar parasitised, only one third instar being recorded. Larvae in the fifth and sixth instar, and later larval stages were most frequently parasitised (Table II). (N.B. Log 1B in Table II was exposed to attack in January after oviposition by *Sirex* in late November. All larvae were in the second and third stages. The other logs (2B, 3B, and 4B) were exposed to *Rhyssa* in October after attack by *Sirex* throughout the previous summer and autumn. Instars from IV up to pupae were present.)

Table II

Parasitism of *Sirex noctilio* F. by *Rhyssa persuasoria* (L.) in logs of *P. radiata* subjected to attack in the Laboratory at Nelson, 1957.

Log No.	No. of *Sirex* Larvae Present	Percentage Parasitism	No. of *Sirex* larvae parasitised by Instars					
			II	III	IV	V	VI* Plus	PUPAE
1B	103	0.97		1				
2B	32	34.37			2	4	5	
3B	19	25.38			1	2	2	
4B	51	31.40			1	6	9	
				1	4	12	16	

* N.B.—More than 6 instars may be present in the development of some individuals, and this column probably includes at least a few seventh instars.

See text for details of time of infestation of logs by *Sirex* and subsequent time of selection by *Rhyssa* so that larvae of various instars could be available for parasitism.

Rhyssa persuasoria is apparently not very efficient at finding hosts. It was noted on several occasions that the parasite had barely missed a host larva in one probe but sometimes found another host nearby with one of several other probes. *Rhyssa* may strike a larval tunnel up to an inch away from the host larva and still successfully parasitise the *Sirex*. This depends on the depth of the host in the wood and is apparently accomplished by the ovipositor bending along the *Sirex* tunnel. In most instances, where groups of *Sirex* larvae were within reach of *Rhyssa,* only one or two were parasitised. Such evidence indicates that *Rhyssa persuasoria* is unlikely to exert a strong controlling influence on the numbers of *S. noctilio.*