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EARLY SPRING EMERGENCE OF *ANAX JUNIUS* (ODONATA: AESHNIDAE) IN CENTRAL PENNSYLVANIA

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specimens from Utah (Richards 1970). In the relative lengths of the femora, *grandipes* resembles *brevipes* Richards. However, in the latter the dorsal and lateral setae in the embryo are flabellate except on the apical two or three abdominal segments.

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EARLY SPRING EMERGENCE OF *ANAX JUNIUS* (ODONATA: AESHNIDAE) IN CENTRAL PENNSYLVANIA

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Anax junius Drury is a common large dragonfly with a wide North American distribution extending into southern Canada (Needham and Westfall 1955). In Canada and portions of the northern United States, *Anax junius* usually emerges during mid and late summer (Walker 1958; Trottier 1966; Young 1967) even though mature adults appear before that time. Since teneral and exuviae are absent in the spring when mature adults first appear, Walker (1958) proposed a northward spring migration. Such a migration seems reasonable considering the well documented southward fall migration of *Anax junius* (Shannon 1916; Bagg 1958). Assuming that an early spring migration occurs, it is important to establish the geographical regions where *Anax junius* emerges in the early spring in order to determine migration distances and to study the environmental factors which stimulate early spring emergence as opposed to summer emergence.

In an attempt to increase information on the seasonal distribution of Odonata at Ten Acre Pond (White 1963), we began visiting the pond at weekly intervals after the snow and ice had melted. On 31 March 1963, one week after the first break in subfreezing evening temperatures and about two weeks after snow melt, we observed a fully mature male *Anax junius* patrolling the shore and collected two exuviae of this species clinging to emergent vegetation. On 7 April about 30 mature adult *Anax junius* were seen, including four or five tandem pairs. On this and subsequent visits exuviae were not looked for. We observed mature adults throughout April and May but never saw teneral. It was not until 4 May 1963 that other species of Odonata appeared (*Tramea carolina* L., *Lestes disjunctus australis* Walker, and *Ischnura verticalis* Say). As is the case in southern Canada, there is a mid to late summer emergence period at Ten Acre Pond.

Although we did not observe teneral, the presence of exuviae confirms the early spring emergence of *Anax junius*. The possibility that these exuviae were left over from the summer of 1962 seems extremely remote considering their

undamaged condition, the severe winter, and that in late summer the water level is considerably below the level where the exuviae were found. This conjecture seems to be borne out by Calvert (1934), who showed that *Anax junius* exuviae decompose in undisturbed water within a month and probably last even less time in nature.

From our observations it is evident that there are two periods of emergence for *Anax junius* in central Pennsylvania, early spring and mid to late summer. If the *Anax junius* adults observed in Canada during the early spring emerged in central Pennsylvania, the shortest distance they need to have migrated is about 250 miles.

Note added in proof. Although we did not observe teneral of *Anax junius* at Ten Acre Pond during the spring of 1963, teneral specimens have been collected by others during March in Westmoreland County (C. Ahrens, 26 March 1939) and Beaver County (M. E. Carter, March 1963), both in western Pennsylvania. We thank G. H. and A. F. Beatty for permitting us to use these data from their compilation of Pennsylvania Odonata records and also for their continuing encouragement and helpful suggestions.

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A NOTE CONCERNING *PSEUDOHYLESINUS SERICEUS* (COLEOPTERA: SCOLYTIDAE)

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Abstract

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A lectotype for *Hylurgus sericeus* Mannerheim is designated. It is located in the Museum of Comparative Zoology, Harvard University, Cambridge, Mass. *Pseudohylesinus pini* Wood is placed in synonymy.

In 1843, Mannerheim described *Hylurgus sericeus* from a series of undetermined size. Two specimens are in the Mannerheim collection in Helsinki, Finland, and one specimen is in the Leconte collection at Harvard University, Cambridge, Massachusetts. Two of these specimens are presumed to be part of the original type series and are therefore syntypes and of equal value in nomenclature. Swaine (1917) described *Pseudohylesinus* and included *Hylurgus sericeus* Mann. in the genus along with several other species. Blackman (1942) revised *Pseudohylesinus* and used the syntype in the Leconte collection as his basis for the name *sericeus*. A monograph of the genus was published by me