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Some notes on the distribution of the waterbug, *Gerris najas* (Degeer, 1773), in the Netherlands (Hemiptera-Heteroptera)

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The water-strider *Gerris najas* is found on running waters and lakeshores. In the Netherlands it occurs mainly in brooks. It preys upon insects fallen on the water-surface.

In order to ascertain the recent distribution in the Netherlands, the author visited most of the running waters and lakes in this country in the years 1962 to 1966 inclusive.

Where the species was found data were collected on ecological conditions, such as rate of flow and water-pollution. The localities where the species was found are marked as dots on the map and records are given in table I.

Table I. Records of *Gerris najas* in the Netherlands 1960-1966.

year	province	municipality	locality
1965	Drente	Vries	Zeegser loopje
1965	Drente	Assen	Ruimsloot near Anreep
1963	Overijssel	Losser	Ruenberger beek
1962/1966	Gelderland	Ermelo	Hoopuizer beek
1963	Gelderland	Winterswijk	Kleine Kottense beek
1962	Gelderland	Winterswijk	Henxelse beek
1963	Gelderland	Winterswijk	Ratumse beek
1963	Gelderland	Winterswijk	Willinkbeek
1962	Gelderland	Winterswijk	Slinge near Huppel
1964	Gelderland	Epe	brooks near Vaassen
1964	Gelderland	Epe	Verloren beek
1964	Gelderland	Epe	Klaarbeek
1964	Gelderland	Epe	Tongerense beek

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<i>year</i>	<i>province</i>	<i>municipality</i>	<i>locality</i>
1962	Noord-Brabant	Oisterwijk	Rozep
1965	Noord-Brabant	Oisterwijk	Rozep
1960	Noord-Brabant	Vught	?
1964	Noord-Brabant	Hooge- en Lage Mierde	boven Reusel
1962	Noord-Brabant	Hilvarenbeek	Reusel
1964	Noord-Brabant	Hilvarenbeek	Reusel
1964	Noord-Brabant	Diessen	Reusel near Baarschot
1964	Noord-Brabant	Leende	Strijper Aa
1964	Noord-Brabant	Leende	Grote Aa
1964	Noord-Brabant	Leende	Kleine Aa
1954	Noord-Brabant	Heeze	Sterkselse Aa
1962	Noord-Brabant	Westerhoven	Keersop
1964	Noord-Brabant	Westerhoven	Keersop
1964	Noord-Brabant	Westerhoven	Beekloop
1965	Noord-Brabant	Meerveldhoven	Gender
1963	Noord-Brabant	Oost-, West- en Middel- beers	Grote Beerze
1963	Noord-Brabant	Oost-, West- en Middel- beers	Kleine Beerze
1964	Noord-Brabant	Asten	Astense Aa
1966	Noord-Brabant	Asten	Astense Aa
1962	Noord-Brabant	Goirle	Kleine Lei
1964	Noord-Brabant	Baarle-Nassau	Marksken
1964	Noord-Brabant	Rijsbergen	Hazeldonkse beek
1964	Noord-Brabant	Nieuw-Ginniken	Bavelse or Broekloop
1964	Noord-Brabant	Nieuw-Ginniken	Strijbeek
1964	Noord-Brabant	Nieuw-Ginniken	Galderse beek
1964	Noord-Brabant	Chaaam	Chaaamse beek
1966	Limburg	Hunsel	Ittersche beek
1966	Limburg	Thorn	Thornder beek
1966	Limburg	Heel en Panheel	Grathemse beek
1962	Limburg	Susteren	Middelgraaf
1963	Limburg	Susteren	Middelgraaf
1966	Limburg	Susteren	Middelgraaf
1962	Limburg	Wittem	Geul near Epen
1963	Limburg	Wittem	Geul near Epen
1964	Limburg	Wittem	Geul near Epen
1965	Limburg	Wijnandsrade	Bissebeek?

Gerris najas was absent from most of the visited localities, although Reclaire (1932) stated that the bug was common in the Netherlands. An attempt has been made to get a survey of the distribution before 1960. For this purpose literature and unpublished reports in the RIVON files were consulted (Anonymous, 1954, Resultaten Vlodropexcursie door het Rijksmuseum van Nat. Hist.; Leentvaar, P., 1940, Waarnemingen over *Gerris (Hygotrechus) najas*, M. Sc. thesis; Reclaire, 1932: 217, and 1948: 51; Schimmel, H. J. W., e.a., 1955, De Drentse beken en beekdalen en hun betekenis voor natuurwetenschap en landschapsschoon. Rapport van de afdeling natuurbescherming en landschap Staatsbosbeheer: 26, 43.) Moreover, entomological collections in Amsterdam, Leiden and Wageningen were investigated. These data are

supplemented by some verbal information. In most cases only the names of villages were acquired. The data are recorded in table II, and the localities noted with a crosslet on the map.

Table II: Records of *Gerris najas* in the Netherlands before 1960.

<i>year</i>	<i>province</i>	<i>municipality</i>	<i>locality</i>	<i>reference</i>
1882	Groningen	Groningen	Haaren?	Fokker
1913	Drente	Odoorn	Odoorn	coll. Amsterdam
1954	Drente	Vries	Zeegeer loopje	Schimmel
1954	Drente	Vries	Oostervoortse diep*)	Schimmel
1954	Drente	Rolde	Amer diep *)	Schimmel
1954	Drente	Rolde	Gasterense diep *)	Schimmel
1954	Drente	Rolde	Anderense diep *)	Schimmel
1954	Drente	Beilen	Beiler stroom *)	Schimmel
1906	Overijssel	Oldenzaal	Oldenzaal	MacGillavry
1928	Overijssel	Oldenzaal	Oldenzaal	Coll. Leiden
1906	Overijssel	Denekamp	Denekamp	Reclaire
1931	Gelderland	Ermelo	Nunspeet	Reclaire & van der Wiel
1940	Gelderland	Ermelo	Hoophuizer beek	Leentvaar
1936	Gelderland	Harderwijk	Hierdense beek *)	Coll. Leiden
1940	Gelderland	Harderwijk	Hierdense beek	Leentvaar
1946	Gelderland	Harderwijk	Hierdense beek	Engel
1906	Gelderland	Reden	brook in Velp	Salverda
1880	Gelderland	Reden	Laag-Soeren	Fokker
1950	Gelderland	Apeldoorn	Beekbergen	Coll. Leiden
1880	Gelderland	Renkum	Doorwerth	Fokker
1926	Gelderland	Ede	Bennekom	Coll. Wageningen
1875	Gelderland	Vorden	Vordense beek?	Coll. Amsterdam
1884	Gelderland	Vorden	Vordense beek?	Reclaire
1933	Gelderland	Winterswijk	Stemerinkbrug	Coll. Leiden
1949	Gelderland	Winterswijk	Winterswijk	Coll. Leiden
1909	Noord-Holland	Amsterdam?	?	Coll. Amsterdam
1880	Utrecht	de Bilt	de Bilt	Fokker
1880	Utrecht	Driebergen- Rijzenburg?	Driebergen?	Fokker
1920	Utrecht	Soest	Soest	Reclaire
1937	Utrecht	Amersfoort	Amersfoort	Coll. Leiden
1942	Utrecht	Utrecht	Kromme Rijn near Utrecht *)	Leentvaar
1875	Noord-Brabant	Breda	Breda	Coll. Leiden
1880	Noord-Brabant	Oisterwijk	Oisterwijk	Fokker
1914	Noord-Brabant	Oisterwijk	Oisterwijk	MacGillavry
1923	Noord-Brabant	Oisterwijk	Oisterwijk	Reclaire
1921	Noord-Brabant	Nw.-Ginneken	Nw.-Ginneken (Chaamse beek?)	Coll. Leiden
1924	Noord-Brabant	Nw.-Ginneken	Nw.-Ginneken (Chaamse beek?)	Coll. Leiden

<i>year</i>	<i>province</i>	<i>municipality</i>	<i>locality</i>	<i>reference</i>
1929	Noord-Brabant	Nw.-Ginneken	Ulvenhout (Broekloop?)	MacGillavry
1930	Noord-Brabant	Berlicum	A near Berlicum	Coll. Leiden
1944	Noord-Brabant	Hilvarenbeek	Reussel near Esbeek	Coll. Leiden
1920	Noord-Brabant	Bergen op Zoom	Bergen op Zoom (Zoom?)	MacGillavry
1955	Noord-Brabant	Hoogeloon, Hapert en Casteren	Beerze near Casteren	Leentvaar
1959	Noord-Brabant	Heeze	Grote A?	Woutstra
1950	Limburg	Meerssen	't Geulken	Coll. Leiden
1880	Limburg	Valkenburg- Houthem	Valkenburg (Geul?)	Fokker
1907	Limburg	Valkenburg- Houthem	Valkenburg (Geul?)	MacGillavry
1915	Limburg	Valkenburg- Houthem	Houthem (Geul?)	MacGillavry
1924	Limburg	Wijlre	Geul	Coll. Leiden
1916	Limburg	Wittem	Geul near Epen	MacGillavry
1919	Limburg	Wittem	Geul near Epen	MacGillavry
1933	Limburg	Wittem	Geul near Epen	MacGillavry
1942	Limburg	Wittem	Geul near Epen	Coll. Leiden
1944	Limburg	St. Odiliënberg	Roer?	Reclaire
1948	Limburg	St. Odiliënberg	Vlootbeek near Munnigsbos *)	Coll. Leiden
1944	Limburg	Vlodrop	Roer?	Reclaire
1944	Limburg	Melick en Herkenbosch	Roer?	Reclaire
1948	Limburg	Montfort	Montforter beek *)	Coll. Leiden
1948	Limburg	Swalmen	Swalm?	Coll. Leiden
1949	Limburg	Roermond	Maasniel (Maas- nielderbeek? *)	Cobben
1914	Limburg	Weert	?	MacGillavry
?	Limburg	Venlo	?	v. d. Brande
1935	Limburg	Gennep	brook near Plasmolen	Geijskes
1955	Limburg	Thorn	Thornder beek	Woutstra

*) absent from investigations after 1960.

The data compiled in table II must be very incomplete, as formerly the water-strider was very common and attention was only paid to the occurrence of the rare macropterous specimens. If we take for granted, that the water-strider was very common and that all localities of table I were suitable for *Gerris najas* before 1960 too, we may conclude, that the number of suitable localities has been diminished.

Possible causes for this decline are: canalization, water-pollution, tree-felling on the banks and frequent disturbance. Two observations will be given here as an example of decreasing populations.

In 1962 some thousands of specimens were observed on a short section of the Middelgraaf in the province of Limburg. The brook was winding and shrubs and trees covered the banks. In 1964 the section referred to was

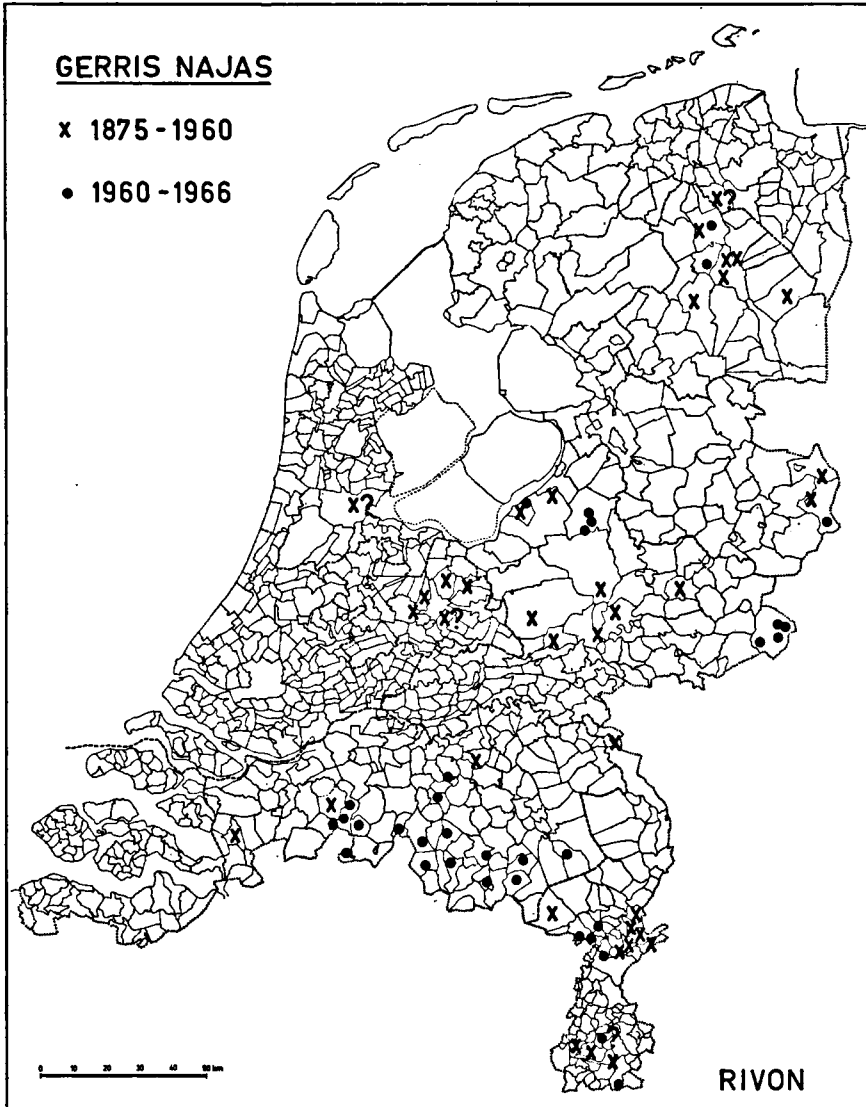


FIG. 1. Records of *Gerris najas* in The Netherlands.

canalized and vegetation was removed from the banks. In 1965 and 1966 only five specimens of *Gerris najas* could be located.

In 1940 P. Leentvaar counted 6525 individuals along 1350 metres of the Hoophuizer beek (unpublished). In the years 1962 to 1966 inclusive we visited the same brook several times each year, but we never saw more than two hundred specimens.

The observations on the distribution of *Gerris najas* will be continued in the next years in order to collect more data on a possible decrease of the species, and the causes there of, and on the protective measures taken at the places where the species is found at present.

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