

茨城県におけるアメリカナミウズムシ  
(扁形動物門, 三岐腸目) の出現記録

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**The First Record of a North American Freshwater Planarian,  
*Girardia tigrina* (Girard) (Plathelminthes, Tricladida)  
from Ibaraki Prefecture, Central Japan**

Shigeo CHINONE, Kiyohiko YAMAMOTO and Masaharu KAWAKATSU

*Kawakatsu's Note.* This is a Japanese paper with English abstract and explanations of 7 figures. Copies of the cover of a reprint, the first page (p. 33) and 4 figures (modified) are shown.

*Digital version of this article is available at Kawakatsu's private collection.*

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**Abstract**

According to Chinone's field surveys after the year 2004, natural distribution of an unidentified exotic planarian has gradually been increasing in Ibaraki Prefecture. This species was tentatively identified to *Girardia tigrina*, (Girard, 1850), which was originally described from The Continent of North America, and has long been known as a North American species. It is, however, now known to be a cosmopolitan species distributed widely in the world. In Ibaraki Prefecture, it is now rather common in shallow waters such as brooks, irrigation canals and ponds in lowland areas (5-20 m above the sea). However, no sexually mature individuals of this species have been found in the Ibaraki populations. They have a chromosome number of  $3x = 24$ , with a karyotype of  $3m + 3m + 3m + 3m + 3m + 3m + 3m + 3m$ . Since the triploid *G. tigrina* reproduces asexually by fission, its population density may have been increasing in the Tone River system during recent years.

**Key words:** Plathelminthes, *Girardia tigrina*, exotic species, freshwater planarian, Ibaraki Prefecture, Tone River System.

はじめに

茨城県に生息する淡水生プラナリア類(扁形動物門, 三岐腸目)は4種で, うち3種は地上水生種, 1種は地下水生種である。平地ではナミウズム

シ *Dugesia japonica* Ichikawa and Kawakatsu, 1964 が広く分布し, 八溝山などの山地にはミヤマウズムシ *Phagocata vivida* (Ijima and Kaburaki, 1916) とカズメウズムシ *Seidlia auriculata* (Ijima and Kaburaki, 1916) が分布している(茅根, 1961; 菊池・茅根, 1961;

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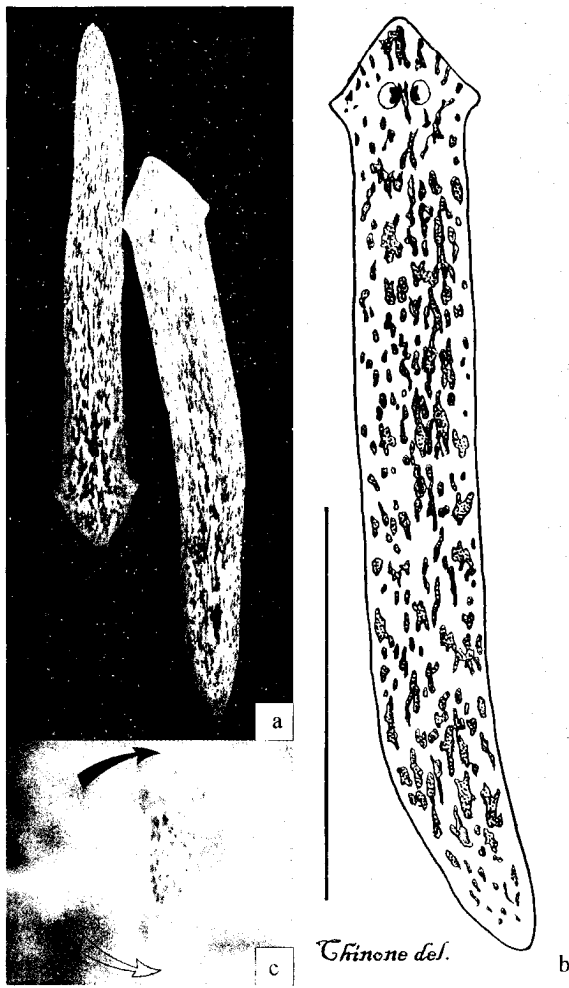


図 1. アメリカナミウズムシ *Girardia tigrina* (Girard, 1850) と仮同定された茨城県東仁連川産の淡水プラナリア外来種。a: 2 個体の生体写真, b: 生体のスケッチ (バーは 5 mm), c: 生体から得られたはん紋のある咽頭の写真 (長さは 2 mm)。黒い矢印は咽頭基部, 白い矢印は口。はん紋のある咽頭は *Girardia* 属の特徴。

Fig. 1. An exotic freshwater planarian, tentatively identified to *Girardia tigrina* (Girard, 1850), collected from the Higashi-nire River, Ibaraki Prefecture, central Japan. a: Two live specimens (photographed by Chinone). b: Sketch of a live specimen (bar, 5 mm). c: A pigmented pharynx removed from a live specimen (ca. 2 mm long January 11, 2004). A black arrow indicates the pharyngeal base; an open arrow, the mouth (photographed by Chinone). This is the typical pigmented pharynx of species of the genus *Girardia* Ball, 1974.

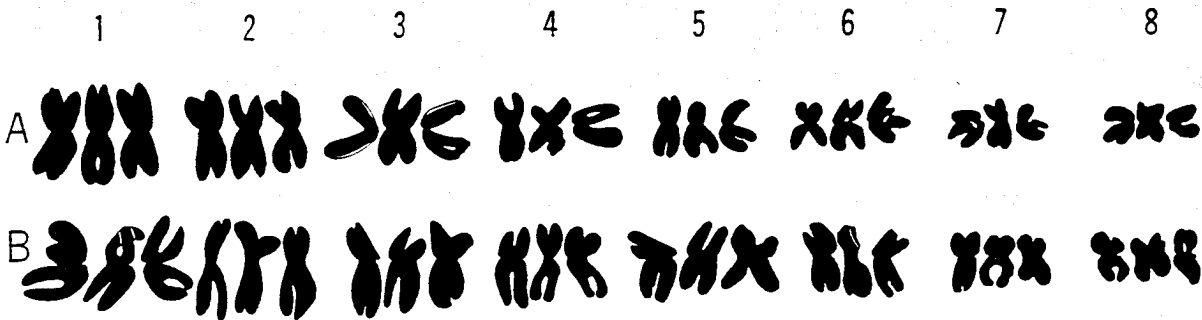


図 2. アメリカナミウズムシの核型図: 茨城県東仁連川産の 2 個体 (A, B), 3 倍体 ( $3x = 24$ ) で,  $3m + 3m + 3m + 3m + 3m + 3m + 3m + 3m$ .

Fig. 2. Idiograms of tentatively identified *Girardia tigrina* (Girard, 1850) from the Higashi-nire River, Ibaraki Prefecture (samples for chromosomal analysis were taken from two specimens).  $3x=24$ , with a karyotype of  $3m + 3m + 3m + 3m + 3m + 3m + 3m + 3m$ .

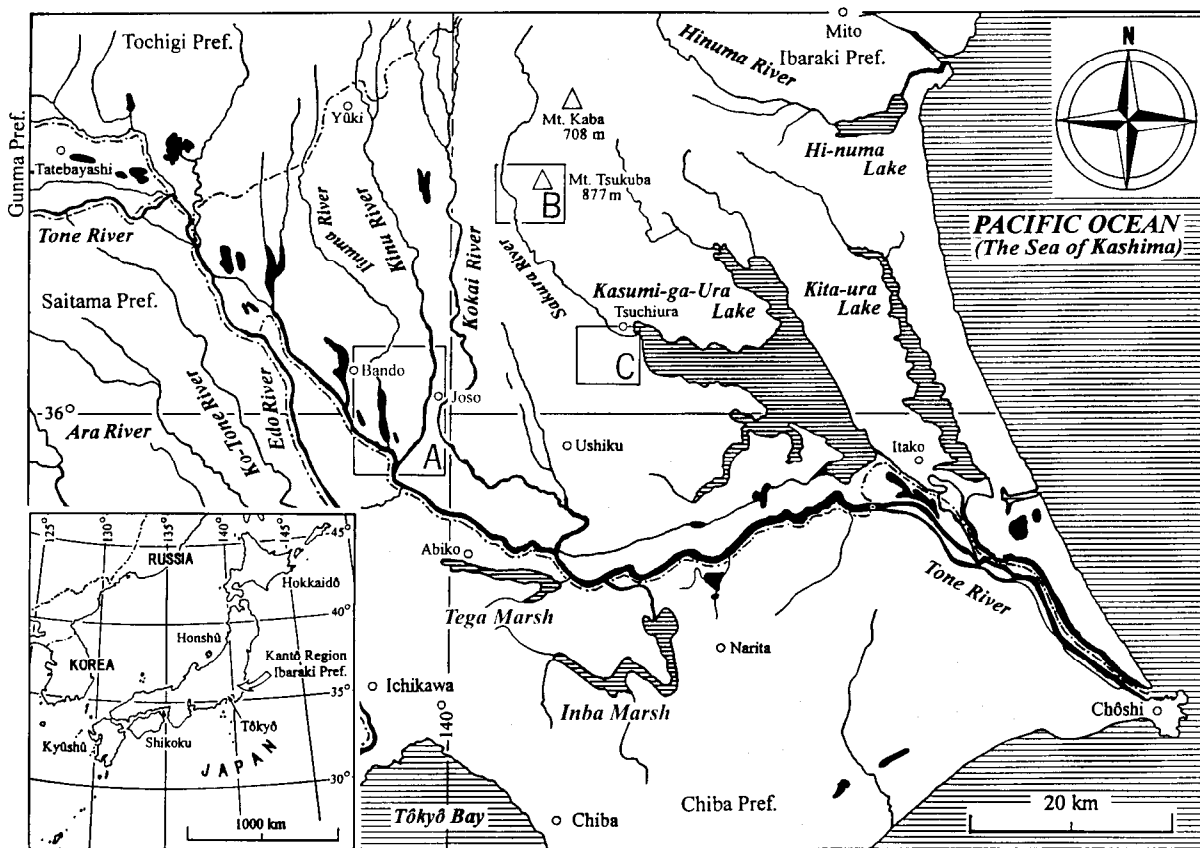


図 3. 関東地方 (茨城県中心) においてアメリカナミズムシの生息の調査をした 3 地域 (A, B, C). 拡大地形図の図 4 (A), 5 (B), 6 (C) を参照.

Fig. 3. Sketched map of the east-central area of the Kantō Region (parts of Ibaraki, Chiba, Saitama, Tochigi and Gunma Prefectures) in central Japan, showing the tree areas where surveys of planarian distribution were carried out (A, B and C). For the enlarged topographical maps of the areas surveyed, see maps A (Fig. 4), B (Fig. 5) and C (Fig. 6), respectively.

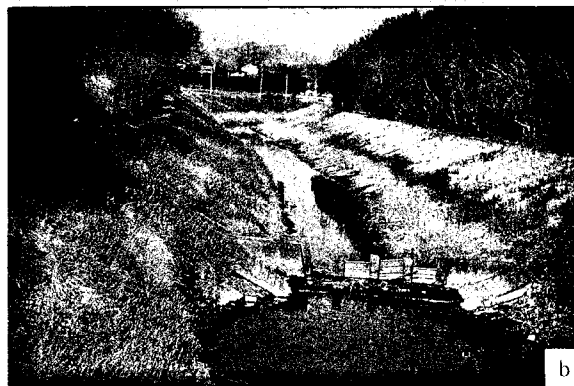


図 7. 調査地点の写真 < 2004. 1. 29 >, a: 菅生沼 (St. 1), b: 東仁連川 (St. 5).

Fig. 7. The photographs of surveyed areas taken on January 29, 2004, a: Sugao Marsh (St. 1), b: Higashi-nire River (St. 5).