

## **Tanytarsini (Diptera: Chironomidae) of Poland – a faunistic review**

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**ABSTRACT.** Geographical and seasonal distribution of the Polish species of the tribe Tanytarsini, based on the material collected at 126 sites in the period of 1974-2000 is given. An updated and annotated checklist including 96 species in 13 genera, synonyms, doubtful names and corrections is presented. Thirty one species are recorded in Poland for the first time.

**KEY WORDS:** Diptera, Chironomidae, Tanytarsini, checklist, faunistics, Poland.

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### INTRODUCTION

Chironomids of the tribe Tanytarsini have occasionally been investigated in Poland, so far. Despite of that many papers including data on Tanytarsini were published in the country, most of them concerned questionable records basing on the old hydrobiological system of larval classification. A key to the determination of larvae (ROMANISZYN 1958) based on the Bause's system and a checklist of Polish Chironomidae (KOWNACKI 1991) are the only references dealing with all species of the tribe known in Poland at that time. The checklist by KOWNACKI (op. cit.) included 54 valid species. However, some of them were mentioned in the XIXth century or at beginning of the XXth century, and needed confirmation (e. g. LOEW 1871, CZWALINA 1893, BOBEK 1894, HARNISCH 1922a). Moreover, several synonyms, incorrect interpretations or doubtful names should be rejected from the list.

In most cases records based on determinations of adult males or pupae (e. g. KOWNACKI et al. 1982, 1995, 1997, SICIŃSKI 1982, 1990, SZADZIEWSKI 1983, GRZYBKOWSKA et al. 1989, 1990, 1995, 1996, GILKA 1997, 2001a, b) are accepted in the new checklist. Up to now 65 valid species of the tribe were known in Poland (GILKA op. cit.); additional 31 species new for the Polish fauna are recorded in the present paper. The expected number of species of Tanytarsini in Poland would exceed 100.

### Acknowledgements

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### MATERIAL AND METHODS

Over 4900 adult males and 250 pupal exuviae and adult females of chironomids of the tribe Tanytarsini were examined. The material published by SICIŃSKI (1982, 1988, 1990), SZADZIEWSKI (1983) and GILKA (2001a, b) were re-examined. Tanytarsini were sampled at 126 sites in Poland (Fig. 1). Sampling sites were registered in 91 UTM squares and numbered within each region in an alphabetical order (numeration in brackets). Geographical division into regions follows KONDRACKI (1978) with modifications of SZADZIEWSKI (1985). Distribution of examined species is given in the Tab. 1.

The material was collected starting from spring to autumn in years 1974-2000. Months (IV-X) were divided into decades (1-3) (Tab. 2, Fig. 2). Adults were collected using an entomological net, Malaise and Moericke traps, and at light and glue. Pupal exuviae and adults were taken as drifting and reared from immature stages. Methods of sampling and rearing of immature stages follow SICIŃSKI (1982, 1990). The material studied was preserved at the Department of Invertebrate Zoology of the University of Gdańsk.

The following abbreviations were used in the checklist: 1, 2, 3... – annotations to the doubtful names and species not examined in the present studies; a-i – references (see annotations); \* – species new for the Polish fauna.

### GEOGRAPHICAL DISTRIBUTION OF EXAMINED SPECIES

#### Sampling sites

**Southern Baltic Coasts.** Bielawskie Błoto nr. Krokowa - CF27 (1); Brzyno at Żarnowieckie lake - CF07 (2); Choczewskie lake nr. Choczewo - XA86 (3); Chałupy on Mierzeja Helska peninsula - CF37 (4); Dobre lake nr. Piaśnica - CF16 (5); Gdańsk-Dolina Radości - CF33 (6); Gdańsk-Nowy Port - CF43 (7); Gdańsk-Oliwa - CF43 (8); Gdańsk-ZOO - CF33 (9); Gdynia-Orłowo - CF43 (10); Godętowo nr. Lębork - XA85 (11); Górki Wschodnie nr. Gdańsk - CF52 (12); Krzewsk nr. Elbląg - CE99 (13); Leszkowy nr. Cedry Wielkie - CF61 (14); Nadole nr. Żarnowieckie lake - CF17 (15); Paraszyno nr. Luzino - CF04 (16); Salino lake nr. Choczewo - XA86 (17); Strzebielino Morskie nr. Luzino - CF05 (18); Świbno at mouth of Wisła river - CF62 (19); Tyłowo nr. Rybno - CF16 (20); Władysławowo - CF37 (21); Żarnowiec - CF17 (22). **Eastern Baltic Coasts.** Bajory Wielkie nr. Srokowo - EF31 (23); Barciany nr. Korsze - EF20 (24); Lęknica nr. Srokowo - EF21 (25); Mała Guja nr. Srokowo - EF31 (26); Marszałki nr. Srokowo - EF31 (27); Wardomy nr. Bartoszyce - DF90 (28);

Wysok nr. Srokowo - EF31 (29). **Southern Baltic Lakelands.** Babi Dół nr. Żukowo, Jar Rzeki Raduni reserve - CF22 (30); Borowo nr. Żukowo - CF22 (31); Borzestowo nr. Kartuzy - XA92 (32); Czaplinek at Drawsko lake - WV83 (33); Czarlino nr. Steżyca - XA81 (34); Czersk, at Świdno lake - XV96 (35); Czysta Woda nr. Steżyca - XA81 (36); Gołubie nr. Steżyca - CF01 (37); Gostomie nr. Sulęcyno - XA80 (38); Hawa at Jeziorak lake - DE04 (39); Kożyczkowo nr. Chmielno - CF02 (40); Kwiatki forestry nr. Osie - CE24 (41); Las Piwnicki reserve nr. Toruń - CD38 (42); Łączyno nr. Kartuzy - CF01 (43); Lubiana nr. Kościerzyna - XV89 (44); Mątwy nr. Inowrocław - CD15 (45); Mirachowo nr. Chmielno - CF03 (46); Mrowiniec nr. Tuchola (47); Niesiołowice nr. Steżyca - XA81 (48); Ogonki nr. Sulęcyno - XA80 (49); Osowa nr. Gdańsk - CF33 (50); Otałżyno lake nr. Szemud - CF13 (51); Pałubice nr. Sierakowice - XA83 (52); Parchowski Młyn nr. Sulęcyno - XA71 (53); Siemionki nr. Kruszwica - CD12 (54); Sokole-Kuźnica at Zalew Koronowski reservoir - XV92 (55); Sulęcyno nr. Bytów - XA81 (56); Śnice nr. Steżyca - XA90 (57); Toruń-Barbarka - CD38 (58); Toruń-Kępa Bazarowa - CD47 (59); Woziwoda on Brda river - XV95 (60); Wysocki Młyn nr. Tuchola - XV85 (61); Zgorzale nr. Steżyca - XA91 (62); Żakowo nr. Sulęcyno - XA81 (63). **Eastern Baltic Lakelands.** Augustów - FE36 (64); Dalny Las nr. Augustów - FE47 (65); Giby nr. Sejny - FE59 (66); Giżycko - EE48 (67); Kiekskiejmy nr. Żytkiejmy - FF12 (68); Leśniewo nr. Srokowo - EF30 (69); Przerwanki nr. Węgorzewo - EE69 (70); Przysań nr. Węgorzewo - EF40 (71); Rubcowo nr. Lipsk - FE66 (72); Ruciane-Nida - EE34 (73); Silec nr. Srokowo - EF30 (74); Solanka nr. Srokowo - EF30 (75); Stańczyki nr. Gołdap - FF01 (76); Surwile nr. Srokowo - EF30 (77); Szczebra nr. Augustów - FE27 (78). **Central Polish Lowlands.** Białobrzegi on Pilica river - DC92 (79); Chociszew nr. Ozorków - CC85 (80); Gąsek nr. Tomaszów Mazowiecki - DC40 (81); Grotniki-Jedlicze nr. Zgierz - CC84 (82); Nowe Miasto on Pilica river - DC71 (83); Nowogród on Narew river - ED59 (84); Rogów nr. Brzeziny - DC24 (85); Spała - DC41 (86); Teofilów nr. Spała - DC40 (87); Tuszyn nr. Łódź, Molenda reserve - CC92 (88); Warka on Pilica river - EC13 (89). **Podlasie.** Białowieża, Park Pałacowy - FD94 (90). **Silesian and Cracowian Upland.** Dolina Będkowska nr. Kraków - DA15 (91); Pilica nr. Zawiercie, spring of Pilica river - DA09 (92); Sławniów on Pilica river - DA19 (93); Wola Filipowska nr. Krzeszowice - CA95 (94); Zabierzów nr. Kraków - DA15 (95). **Central Małopolska Upland.** Lubrzanka river in the Świętokrzyskie Mts.: Ameliówka - DB83 (96); Brzezinki - DB84 (97); Cedzyna - DB73 (98); Leszczyny - DB83 (99); Marzysz - DB72 (100); Suków - DB72 (101); Zagnańsk-Gruszka - DB74 (102); Zagnańsk-Jaworze - DB74 (103). Pilica river: Koniecpol - DB02 (104); Łany Wielkie nr. Szczekociny - DA19 (105); Maluszyn nr. Włoszczowa - DB14 (106); Obiechów nr. Szczekociny - DB10 (107); Przedbórz - DB26 (108); Przyłęk nr. Koniecpol - DB11 (109); Skotniki nr. Sulejów - DB27 (110); Szczekociny - DB10 (111); Wola Libertowska nr. Wolbrom - DA19 (112). Radońka river in the Wzgórza Opoczyńskie hills: Podklasztorze nr. Sulejów - DB29 (113). **Sudety Mts.** Pokrzywna nr. Głucholazy - XR77 (114); Sosnówka Dolna nr. Karpacz - WS52 (115); Szklarska Poręba - WS33 (116). **Northern Subcarpathians.** Maliniec nr. Zaklików - EB81 (117). **Central West Carpathians.** Dolina Miętusia valley - DV25 (118); Dolina Roztoki valley - DV35 (119); Morskie Oko lake - DV34 (120); Wielki Staw lake - DV35 (121); Zakopane-Huty - DV25 (122); Zakopane-Jaszczurówka - DV25 (123); Zakopane-Oberconiówka - DV25 (124). **East Beskidy Mts.** Ustrzyki Górne - FV24 (125); Wołosate - FV23 (126).

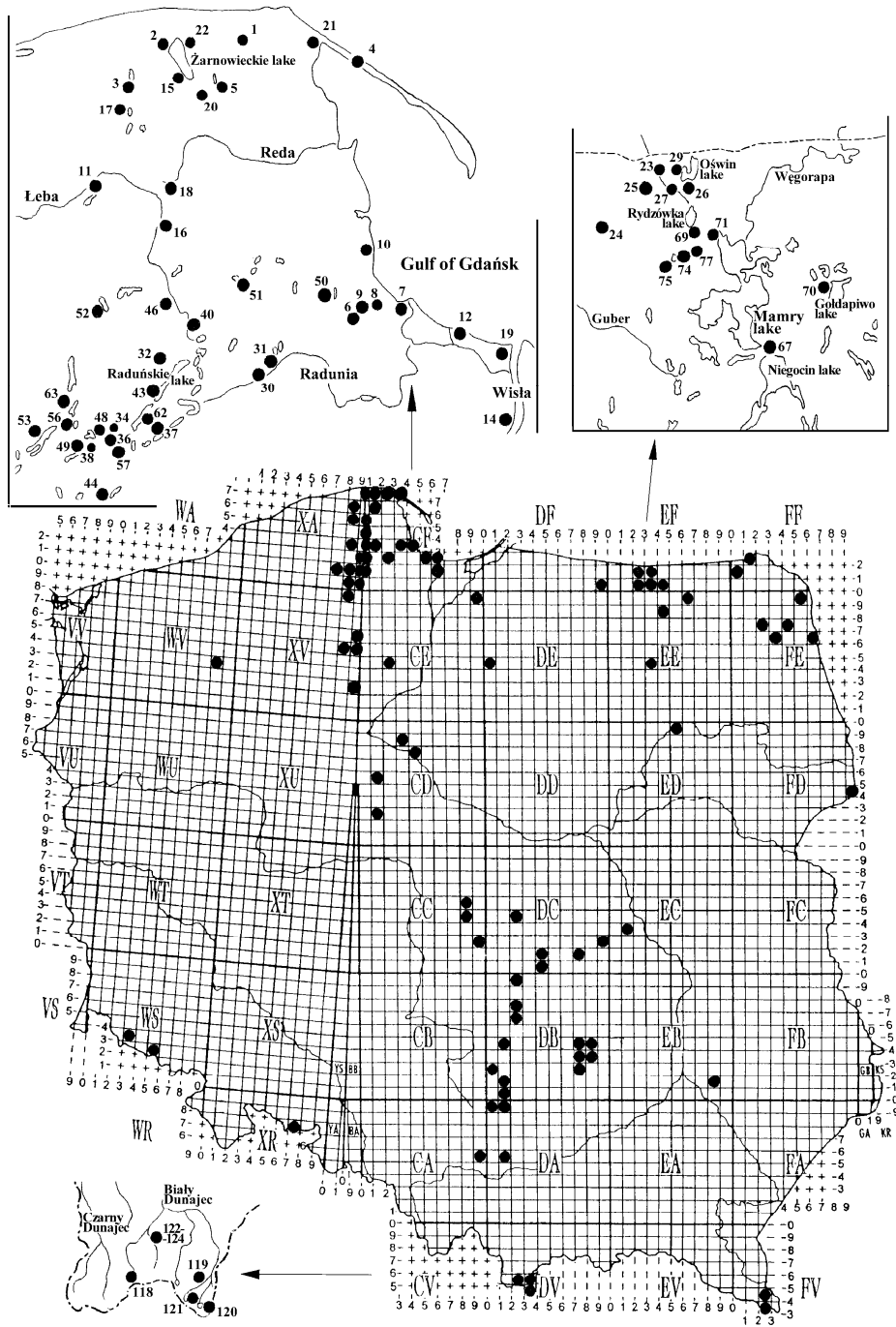


Fig. 1. Sampling sites.

**Table 1.** Geographical distribution of examined species of the tribe Tanytarsini in Poland.

Species	Sampling site
<i>C. atridorsum</i>	2, 29, 40, 48, 52, 63, 64, 66, 71, 74, 76, 96, 110
<i>C. cyrylae</i>	23
<i>C. difficilis</i>	3, 48, 66, 71
<i>C. gedanicus</i>	10, 12, 45
<i>C. mancus</i>	2, 4, 5, 12, 17, 21, 23, 27, 29, 32, 33, 35, 39, 40, 43, 47, 48, 49, 56, 57, 61, 62, 63, 64, 66, 73, 74, 76, 85, 115 (det. on adult males, required confirmation); 97, 98, 99, 104, 110 (det. on pupae and adult males)
<i>C. matthei</i>	71
<i>C. nigrovittatus</i>	3, 40, 51, 63, 71
<i>C. teres</i>	40
<i>C. vanderwulpi</i>	61, 76, 87, 110, 113
<i>C. wexionensis</i>	42, 48, 50, 74
<i>M. apposita</i>	6, 26, 46, 47, 60, 61, 76, 81, 92, 96, 97, 99, 104, 107, 108, 110, 111, 112, 122, 123, 124
<i>M. atrofasciata</i>	2, 3, 6, 9, 11, 16, 24, 25, 28, 29, 30, 34, 36, 46, 58, 61, 68, 71, 74, 76, 80, 82, 86, 87, 91, 92, 93, 95, 98, 99, 103, 104, 105, 106, 108, 109, 110, 111, 112, 114, 115, 121, 122, 124, 125, 126
<i>M. attenuata</i>	6, 36
<i>M. bidentata</i>	36, 40, 46, 102, 114, 120
<i>M. fusca</i>	6, 103, 114, 115, 116, 123, 126
<i>M. groenlandica</i>	26, 29, 42, 46, 99
<i>M. junci</i>	6, 34, 36, 40, 42, 46, 52,
	63, 71, 74, 88, 94, 115, 126
<i>M. lindrothi</i>	1, 45, 88, 92, 93, 115, 125
<i>M. notescens</i>	6, 36, 46, 48, 71, 74, 102, 108, 112, 123
<i>M. radialis</i>	121
<i>M. recurvata</i>	15, 34, 36, 46, 49, 92, 102
<i>N. fuldensis</i>	98
<i>N. improvisa</i>	120
<i>N. luteola</i>	120
<i>P. nana</i>	40, 116, 119, 124
<i>P. styriaca</i>	36
<i>P. austriacus</i>	6, 10, 46, 74, 91, 92, 108, 120, 121
<i>P. bituberculatus</i>	32, 37, 44, 47, 48, 49, 53, 69, 71, 76
<i>P. dimorphis</i>	48, 52, 69
<i>P. dissimilis</i>	25, 46, 76, 83, 84, 89, 98, 99, 108, 110
<i>P. inopertus</i>	2, 4, 12, 19, 21, 22, 23, 26, 29, 32, 43, 44, 46, 47, 48, 52, 54, 55, 57, 71, 73, 76, 85, 90, 98
<i>P. intricatus</i>	13, 23, 67, 74
<i>P. laccophilus</i>	29, 74
<i>P. laetipes</i>	6, 13, 23, 27, 29, 47, 48, 54, 69, 70, 71, 73, 74, 85, 90
<i>P. lauterborni</i>	22, 74
<i>P. natvigi</i>	98
<i>P. tenellulus</i>	15, 23, 25, 27, 32, 74
<i>P. tenuis</i>	6, 22, 29, 31, 33, 39, 43, 48, 49, 54, 62, 69, 71, 73, 76, 117
<i>Rh. curtistylus</i>	30, 46
<i>Rh. muscicola</i>	2, 74, 126

<i>Rh. nigricauda</i>	123	<i>T. inaequalis</i>	7, 33, 43, 48, 69, 71, 73, 76
<i>Rh. pentapoda</i>	30	<i>T. lactescens</i>	29
<i>Rh. photophilus</i>	8, 42, 59, 76, 83, 87, 110	<i>T. lestagei</i>	2
<i>Rh. ringei</i>	13, 46, 61, 86	<i>T. lugens</i>	33, 76
<i>S. bausei</i>	71, 74, 113, 115	<i>T. medius</i>	63, 74
<i>S. subglabripennis</i>	41, 63	<i>T. mendax</i>	2, 3, 9, 20, 29, 43, 47, 54, 62, 63, 69, 74, 76, 77, 98, 117
<i>S. brevis</i>	91	<i>T. miriforceps</i>	55
<i>S. flavidula</i>	30	<i>T. multipunctatus</i>	63
<i>S. minor</i>	35, 40, 51, 96	<i>T. nemorosus</i>	40, 117
<i>S. saltuum</i>	118	<i>T. niger</i>	15
<i>T. aberrans</i>	31	<i>T. occultus</i>	17, 47, 48, 61, 63, 71, 74, 75, 78, 89, 91, 98, 115, 117
<i>T. bathophilus</i>	2, 15, 33, 69, 71, 76, 120, 121	<i>T. palettaris</i>	18, 114, 125
<i>T. brundini</i>	15, 98, 99, 101, 110	<i>T. pallidicornis</i>	2, 6, 14, 29, 36, 46, 74, 76, 81, 83, 86, 88, 89, 92, 100, 104, 108, 110, 111, 112
<i>T. buchonius</i>	103	<i>T. palmeni</i>	71
<i>T. curticornis</i>	76, 113	<i>T. sylvaticus</i>	48
<i>T. debilis</i>	43, 62, 71, 76	<i>T. usmaënsis</i>	2, 13, 25, 26, 29, 33, 43, 47, 48, 61, 63, 66, 69, 71, 76, 92
<i>T. dibranchius</i>	20, 63, 117	<i>T. verralli</i>	2, 32, 33, 39, 40, 42, 43, 48, 54, 56, 62, 63, 65, 66, 74, 76
<i>T. ejuncidus</i>	9, 74, 76, 81, 90, 96, 104, 110, 113	<i>Th. ploenensis</i>	48
<i>T. eminulus</i>	76, 81	<i>Z. pentatoma</i>	23, 71
<i>T. excavatus</i>	23, 29, 40, 43, 51, 52, 54, 57, 71, 72, 73, 74, 76		
<i>T. fimbriatus</i>	2, 24, 74, 79, 83, 89, 90, 92, 93, 111		
<i>T. gibbosiceps</i>	93, 120		
<i>T. glabrescens</i>	24, 71		
<i>T. gracilentus</i>	12		
<i>T. gregarius</i>	33, 40, 71		
<i>T. heusdensis</i>	24, 30, 74, 81, 82, 110, 113, 114		

The highest number of species was noted in the Baltic Lakelands, where 254 records of 67 species in 49 sites were registered. Southern Baltic Lakelands, with 54 species, are the best studied regions in Poland. It can be suggested it is a result of unequal distribution of sampling sites, although most of Polish species of the tribe Tanytarsini occur in this lacustrine region, in fact.









## CHECKLIST OF THE POLISH TANYTARSINI

*Cladotanytarsus* KIEFFER, 1921

- *atridorsum* KIEFFER, 1924
- *cyrylae* GILKA, 2001
- *difficilis* BRUNDIN, 1947
- *gedanicus* GILKA, 2001
- *mancus* (WALKER, 1856)
- *matthaei* GILKA, 2001
- *nigrovittatus* (GOETGHEBUER, 1922)
- *pallidus* KIEFFER, 1922 - 1
- *teres* HIRVENOJA, 1962
- *vanderwulpi* (EDWARDS, 1929)
- *wexionensis* BRUNDIN, 1947

*Corynocera* ZETTERSTEDT, 1838

- *ambigua* ZETTERSTEDT, 1838 - 2
- = *pedicelliferus* BIRULA, 1935 - d

*Micropsectra* KIEFFER, 1909

- *apposita* (WALKER, 1856)
- = *trivialis* KIEFFER, 1911 - b
- *atrofasciata* (KIEFFER, 1911)
- *attenuata* REISS, 1969 \*
- *bidentata* (GOETGHEBUER, 1921)
- *fusca* (MEIGEN, 1804)
- *groenlandica* ANDERSEN, 1937 \*
- *junci* (MEIGEN, 1818)
- = *gmundensis* EGGER, 1863 - a
- = *praecox* WIEDEMANN, 1818 - h
- *lindrothi* GOETGHEBUER, 1931
- *notescens* (WALKER, 1856)
- = *inermipes* KIEFFER, 1909 - b
- = *praecox* auct. - d, e
- *radialis* GOETGHEBUER, 1939
- *recurvata* GOETGHEBUER, 1928

*Neozavrelia* GOETGHEBUER, 1941

- *fuldensis* FITTKAU, 1954
- *improvisa* FITTKAU, 1954 \*
- *luteola* GOETGHEBUER, 1941

*Parapsectra* REISS, 1969

- *nana* (MEIGEN, 1818) \*
- *styriaca* (REISS, 1969) \*

*Paratanytarsus* THIENEMANN et BAUSE, 1913

- *austriacus* (KIEFFER, 1924)
- *bituberculatus* (EDWARDS, 1929) \*
- *dimorphis* REISS, 1965 \*
- *dissimilis* (JOHANNSEN, 1905)
- = *confusus* PALMÉN, 1960 - e
- *grimmii* (SCHNEIDER, 1885) - 3
- *inopertus* (WALKER, 1856)
- *intricatus* (GOETGHEBUER, 1921) \*
- *laccophilus* (EDWARDS, 1929) \*
- *laetipes* (ZETTERSTEDT, 1850)
- *lauterborni* (KIEFFER, 1909)
- *navigi* (GOETGHEBUER, 1933) \*
- *tenellulus* (GOETGHEBUER, 1921) \*
- *tenuis* (MEIGEN, 1830)

*Rheotanytarsus* THIENEMANN et BAUSE, 1913

- *curtistylus* (GOETGHEBUER, 1921)
- *muscicola* THIENEMANN, 1929
- *nigricauda* FITTKAU, 1960
- *pentapoda* (KIEFFER, 1909)
- = *lapidicola* KIEFFER, 1909 - c
- *photophilus* (GOETGHEBUER, 1921)
- *reissi* LEHMANN, 1970 - 4
- *ringei* LEHMANN, 1970

*Stempellina* THIENEMANN et BAUSE, 1913

- *almi* BRUNDIN, 1947 - 6
  - *bausei* (KIEFFER, 1911)
  - *subglabripennis* (BRUNDIN, 1947)
- Stempellinella* BRUNDIN, 1947
- *brevis* (EDWARDS, 1929)
  - *flavidula* (EDWARDS, 1929) \*
  - *minor* (EDWARDS, 1929)
  - *saltuum* (GOETGHEBUER, 1921) \*

*Tanytarsus* VAN DER WULP, 1874

- *aberrans* LINDEBERG, 1970 \*
- *bathophilus* KIEFFER, 1911
- *brundini* LINDEBERG, 1963
- *buchonius* REISS et FITTKAU, 1971
- *curticornis* KIEFFER, 1911

- *debilis* (MEIGEN, 1830) \*
- *dibranchius* KIEFFER, 1926 \*
- *dispar* LINDEBERG, 1967 - 5, 6
- *ejuncidus* (WALKER, 1856)
- *eminulus* (WALKER, 1856)
- *excavatus* EDWARDS, 1929 \*
- *fimbriatus* REISS et FITTKAU, 1971
- *gibbosiceps* KIEFFER, 1922
- *glabrescens* EDWARDS, 1929 \*
- *gracilentus* (HOLMGREN, 1883)
- *gregarius* KIEFFER, 1909
  - = *lobatifrons* KIEFFER, 1913 - d, 10
- *heusdensis* GOETGHEBUER, 1923
- *inaequalis* GOETGHEBUER, 1921 \*
- *lactescens* EDWARDS, 1929 \*
- *lestagei* GOETGHEBUER, 1922 \*
- *lugens* (KIEFFER, 1916) \*
- *medius* REISS et FITTKAU, 1971
- *mendax* KIEFFER, 1925
  - = *holochlorus* EDWARDS, 1929 - e
- *miriforceps* (KIEFFER, 1921) \*
- *multipunctatus* BRUNDIN, 1947 \*
- *nemosus* EDWARDS, 1929 \*
- *niger* ANDERSEN, 1937 \*
- *occultus* BRUNDIN, 1949 \*
- *palettaris* VERNEAUX, 1969 \*
- *pallidicornis* (WALKER, 1856)
  - = *tetramerus* KIEFFER, 1922 - b
- *palmeni* LINDEBERG, 1967 \*

- *pseudolestagei* SHILOVA, 1976 - 6
- *signatus* (VAN DER WULP, 1858) - 7
- *smolandicus* BRUNDIN, 1947 - 6
- *sylvaticus* (VAN DER WULP, 1858) \*
- *usmaënsis* PAGAST, 1931
- *verralli* GOETGHEBUER, 1928 \*
- Thienemanniola* KIEFFER, 1921
  - *ploenensis* KIEFFER, 1921
  - Virgatanytarsus* PINDER, 1982
    - *arduennensis* (GOETGHEBUER, 1922) - 8
  - Zavrelia* KIEFFER, 1913
    - *pentatoma* KIEFFER, 1913
    - *atrofasciata* KIEFFER, 1921 - 9

#### Nomina dubia

- *bigibbosus* KIEFFER, 1921 - i
- *bipunctatus* KIEFFER, 1922 - i
- *curvicornis* TSHERNOVSKIJ, 1949 - d
- *dicerus* KIEFFER, 1922 - b
- *hilarellus* ZETTERSTEDT, 1838 - a
- *setiger* KIEFFER, 1921 - i
- *suecicus* KIEFFER, 1916 - b
- *trilobatus* KIEFFER, 1921 - i

#### Nomina nuda

- "Paratanytarsus tetraplastus K." - b, 11
- "Rheotanytarsus musicola (KIEFFER, 1909)"
  - h, 12

#### Incorrect interpretations

- "Lauterbornia coracina KIEFFER, 1911" - d, subsequently "Micropsectra coracina (KIEFFER, 1911)" - h [*coracina*: KIEFFER 1911 nec ZETTERSTEDT, 1850 (misidentification) = *radialis* GOETGHEBUER, 1939].
  - "Micropsectra praecox (WIEDEMANN, 1818) - synonym of *Micropsectra notescens* (WALKER, 1856)" - h [*praecox* WIEDEMANN, 1818 nec auct. = *junci* MEIGEN, 1818].
  - "Micropsectra ex grege praecox (MEIGEN, 1818)" - d, subsequently "Micropsectra praecox MEIGEN 1818" - e [*praecox* auct. nec WIEDEMANN in MEIGEN, 1818, = *notescens* WALKER, 1856].
- See SÄWEDAL (1982).

**Misidentifications (material re-examined)**

- *Micropsectra bidentata*: g [= *atrofasciata* KIEFFER, 1911]
- *Stempellinella brevis*: e [= *minor* EDWARDS, 1929]
- *Neozavrelia luteola*: e [= *fuldensis* FITTKAU, 1954]
- *Micropsectra roseiventris*: f, g [= *recurvata* GOETGHEBUER, 1928]

**Annotations**

- 1 - Recognised as a potential synonym of *Cladotanytarsus mancus* (WALKER, 1856). For remarks on systematic position see GILKA (2001b).
- 2 - Records based on determinations of larvae (e.g. GIZIŃSKI & ŻBIKOWSKI 1992).
- 3 - Parthenogenetic species. Recorded in Aleksandrów Łódzki as inhabitant of potable water-supply systems (GRZYBKOWSKA & WIEDEŃSKA 1996; GRZYBKOWSKA, pers. comm.).
- 4 - Recorded in the Pieniny Mts. by KOWNACKI (1982).
- 5 - LINDBERG (1967) mentioned the species "*T. cfr. longiradius* - corresponding of *T. dispar*" in the Tatra Mts. *T. dispar* was also recorded by SROKOSZ (1980) from the Nida river. Records require confirmation.
- 6 - Listed by KOWNACKI (1991). Doubtful determination.
- 7 - Recorded by LOEW (1871) in the Tatra Mts.
- 8 - Recorded by KOWNACKI (1991) in the Tatra Mts.
- 9 - Suspected synonym of *Zavrelia pentatoma* KIEFFER, 1913. Examined males, determined here as *Z. pentatoma*, show variation in their body size, colour and length ratio of palpomeres and fit the original description of *Z. atrofasciata* (KIEFFER 1921). Types of *Z. atrofasciata* are probably lost. Other records are unknown.
- 10 - The name *lobatifrons* KIEFFER, 1913 is a formal synonym of *gregarius* KIEFFER, 1909 (in accordance with hydrobiological system of larval classification is a synonym of the *pallidicornis* aggregation).
- 11 - Description unknown.
- 12 - A species "*musicola* KIEFFER, 1909" (nec *musicola* KIEFFER, 1906) does not exist. The species *Rheotanytarsus muscicola* wasn't described by Kieffer. See LEHMANN (1970).

- a - CZWALINA (1893) – Gdańsk-Oliwa;
- b - HARNISCH (1922a) - Brzeg nr. Wrocław;
- c - HARNISCH (1922b) - Brzeg nr. Wrocław;
- d - ROMANISZYN (1958) – Poland;
- e - SICIŃSKI (1982) - Świętokrzyskie Mts;
- f - SICIŃSKI (1988) - Pilica river;
- g - SICIŃSKI (1990) - Pilica river;
- h - KOWNACKI (1991) – Poland;
- i - original description - Śląsk.

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