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Sammonica cristagalli sp.n. - a new species of feather mite from the Spotted Greenshank *Tringa guttifer* (Charadriiformes: Scolopacidae) (Astigmata: Pterolichoidea: Syringobiidae)

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ABSTRACT. A new species *Sammonica cristagalli* sp.n. (Thailand) of the formerly monotypic genus *Sammonica* OUDEMANS, 1904 (Pterolichoidea, Syringobiidae) is described from the Spotted Greenshank *Tringa guttifer* (Charadriiformes, Scolopacidae). Systematic status of the genus *Sammonica* is discussed.

Key words: Acarology, Pterolichoidea, Syringobiidae, new species, Oriental Region.

INTRODUCTION

The feather mite genus *Sammonica* OUDEMANS, 1904 erected originally as monotypic, for a long time remained the most enigmatic genus of the quill-inhabiting feather mite family Syringobiidae. Since the description of its type species *Sammonica ovalis* (TROUËSSART, 1898), based only on a single male, this mite has never been recollected for almost 100 years. The validity of the genus *Sammonica* was confirmed by DABERT & EHRNSBERGER (1991) after a re-examination of the type material and owing to additional finding of females and heteromorph males. This investigation has also led to a conclusion, that original data on the purported type host (TROUËSSART 1898) the Lesser Yellowleg *Tringa flavipes* appear to be based on host misidentification, the true host being the Great Yellowleg *T. melanoleuca*.

In the present paper we describe the second species of this genus. The new species was found on the rarest tattler Spotted Greenshank *Tringa guttifer*. Like the type species, the new species has polymorphic males.

All measurements are given in μm . The nomenclature of idiosomal chaetotaxy follows GRIFFITHS et al. (1990).

DESCRIPTION

Sammonica OUDEMANS, 1904

Type species: *Syringobia ovalis* TROUËSSART, 1898 from *Tringa flavipes*, (*Scolopacidae*) by original designation.

Sammonica cristagalli sp. n.

Heteromorph male (Figs 1-2). Length of idiosoma 560 holotype (525-545 paratypes), width of idiosoma 250 (225-235), length of hysterosoma 390 (365-370). Idiosoma elongated (length/width=2.2-2.4), gradually narrower to terminus, with small opisthosomal lobes separated by semicircular terminal cleft. Prodorsal shield uniformly dotted, posterior margin of this shield divided into three blunt lobes. Hysteronotal shield covers the whole dorsal surface of hysterosoma, shield uniformly dotted with two longitudinal wrinkled areas between setae d2. Setae c2, f2, h2 and h3 shaped as macrochaetae, setae d2 and e2 medium sized. Setae psl lanceolate.

Coxal fields of propodosoma almost completely covered by shields, without sclerotisation along sternum. A pair of rod-shaped pregenital sclerites present. Paragenital apodemes long, fused anteriorly to apex of genital apparatus by narrow conjunctiva. The first pair of genital acetabulae set at the level of aedeagus base, the second pair more posteriorly. Opisthoventral shields well developed, triangular. Adanal shields rod-like, set anteriorly to anal slit. Setae 3a set posteriorly to aedeagus base.

Legs III greatly hypertrophied, significantly bigger than legs IV. Femur III with big claw-like ventral apophysis more or less crenate on proximal margin. Femur IV with comb-like apophysis. Tibiae III and IV with small tooth-like apophysis at bases of setae kT. Tarsi III and IV with big apico-ventral claw.

Homomorph male (Fig. 3). Length of idiosoma 510, width of idiosoma 200, length of hysterosoma 345. Idiosoma elongated (length/width=2.5), almost parallel-sided, with small opisthosomal lobes separated by semicircular terminal cleft. Pronotal shield and hysteronotal shields as in heteromorph male. Sclerotisation of ventral side of idiosoma as in heteromorph male. Legs III and IV subequal, not hypertrophied. Femora III and IV with cockcomb-like apophysis on ventral side. Other apophyses on legs III and IV as in heteromorph male.

Female (Figs 4-5). Mean length of idiosoma 590 (570-610), width of idiosoma 220 (210-230), length of hysterosoma 415 (405-435). Idiosoma elongated (length/

width=2.6-2.8), almost parallel-sided with very small terminal cleft. Prodorsal shield as in males. Hysteronotal shield with fine puncturation, covers the whole dorsal surface of hysterosoma, not fused with lateral sclerites. In medial part between setae d2 a rounded area very poorly sclerotized. Coxal fields I and II sclerotized along epimeres only. Epigynium horseshoe-shaped. Setae f2 lanceolate with two small additional teeth near apex (Fig. 6). Setae c2 much shorter than setae d2.

DIFFERENTIAL DIAGNOSIS

The main characters, which separate the new species from the type species *Sammonica ovalis* (TROUSSERT, 1898) are as follows:

Heteromorph males of *Sammonica cristagalli* sp.n. have only legs III hypertrophied, big claw-like apophysis on femur III, no sclerotisation on posterior tip of sternum, paragenital apodemes fused, setae 3a set posteriorly to apex of genital apparatus. Heteromorph males of *Sammonica ovalis* have legs III and IV hypertrophied, subequal in size, on femur III blunt small ventral apophysis, posterior tip of sternum with small shield, paragenital apodemes free, setae 3a set anteriorly to apex of genital apparatus.

In homomorph males of *Sammonica cristagalli* the prodorsal shield is entire, hysteronotal shield uniformly dotted, coxal fields II completely covered by shields, legs IV reach the terminus of opisthosoma, apophyses of femora III and IV well developed, comb-like; apophyses of femora III and IV. In homomorph males of *Sammonica ovalis* the prodorsal shield is divided in two parts, hysteronotal shield transversely striated, coxal fields II are deeply incised, legs IV not extending to posterior margin of opisthosoma, apophyses of femora III and IV greatly reduced.

In females of *Sammonica cristagalli* setae c2 are much shorter than setae d2, setae f2 with additional teeth near apex. In females of *Sammonica ovalis* setae c2 are at least as long as d2, setae f2 lanceolate.

TYPE MATERIAL

Holotype heteromorph male, paratypes 2 heteromorph males, 1 homomorph male, 10 females from Spotted Greenshank *Tringa guttifer* (from avian study skin ZMUM #230989), Thailand, Mekong, 28 April 1929, C.J. AAGAARD. Holotype is deposited at Zoological Museum, Michigan University (ZMUM, USA), paratypes are deposited at ZMUM and Adam Mickiewicz University (UAM, Poland).

ETYMOLOGY

Specific name *cristagalli* (*crista* - crest, *gallus* - chicken, fowl) points to the form of apophysis on the femur of males.

SYSTEMATIC REMARKS

The new species confirms the observation (DABERT & EHRNSBERGER 1991) that the genus *Sammonica* is an intermediate form between the genera *Sikyonemus*

GAUD, 1966 and *Syringobia* TROUËSSART & NEUMANN, 1888. Both species of *Sammonica* show a mosaic of characters, which are diagnostic either for *Sikyonemus* or for *Syringobia*. These features are distributed erratically among species of *Sammonica* (Tab. 1). It seems that the genus *Sammonica* resembles the common ancestor of the phyletic lineages leading to the recent genus *Sikyonemus* and *Syringobia*-like group of genera (*Syringobia*, *Megasyringobia*).

Characters	<i>Sikyonemus</i>	<i>Syringobia</i>	<i>Megasyringobia</i>	<i>Sammonica</i> <i>ovalis</i>	<i>Sammonica</i> <i>cristagalli</i>
1. Legs III and IV hypertrophy + legs III hypertrophied - legs IV hypertrophied 0 - no hypertrophy	+	-/0	-/0	-/0	+/0
2. Pronotal shield + two partial - not divided	+	-	-	+/-	-
3. Paragenital sclerites + free - fused	+	-	+	+	-
4. Setae ps1 + lanceolate - hair-like	+/-	-	-	+	+
5. Setae cG on legs I and II + thick, bifurcated apically - hair- or needle-like 0 knife-like	+	-	+	-	-
6. Apophyses on femora III and IV + on femora III - on femora IV 0 absent	+	-/0	0	-	+
7. Pregenital sclerites + absent - present	+/-	-	-	-	-

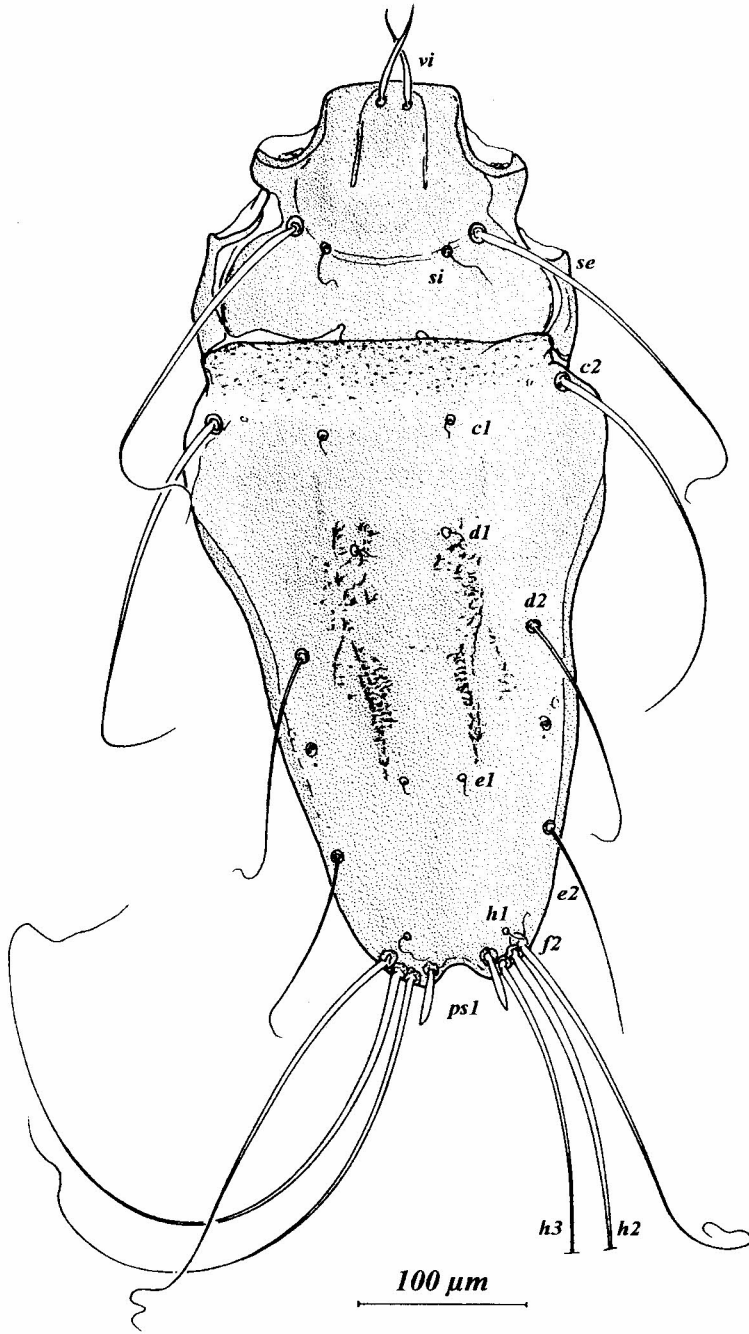
Tab. 1. Mosaic distribution of alternative diagnostic characters of the genera *Sikyonemus*, *Syringobia* and *Megasyringobia* among species of the genus *Sammonica*.

ACKNOWLEDGEMENTS

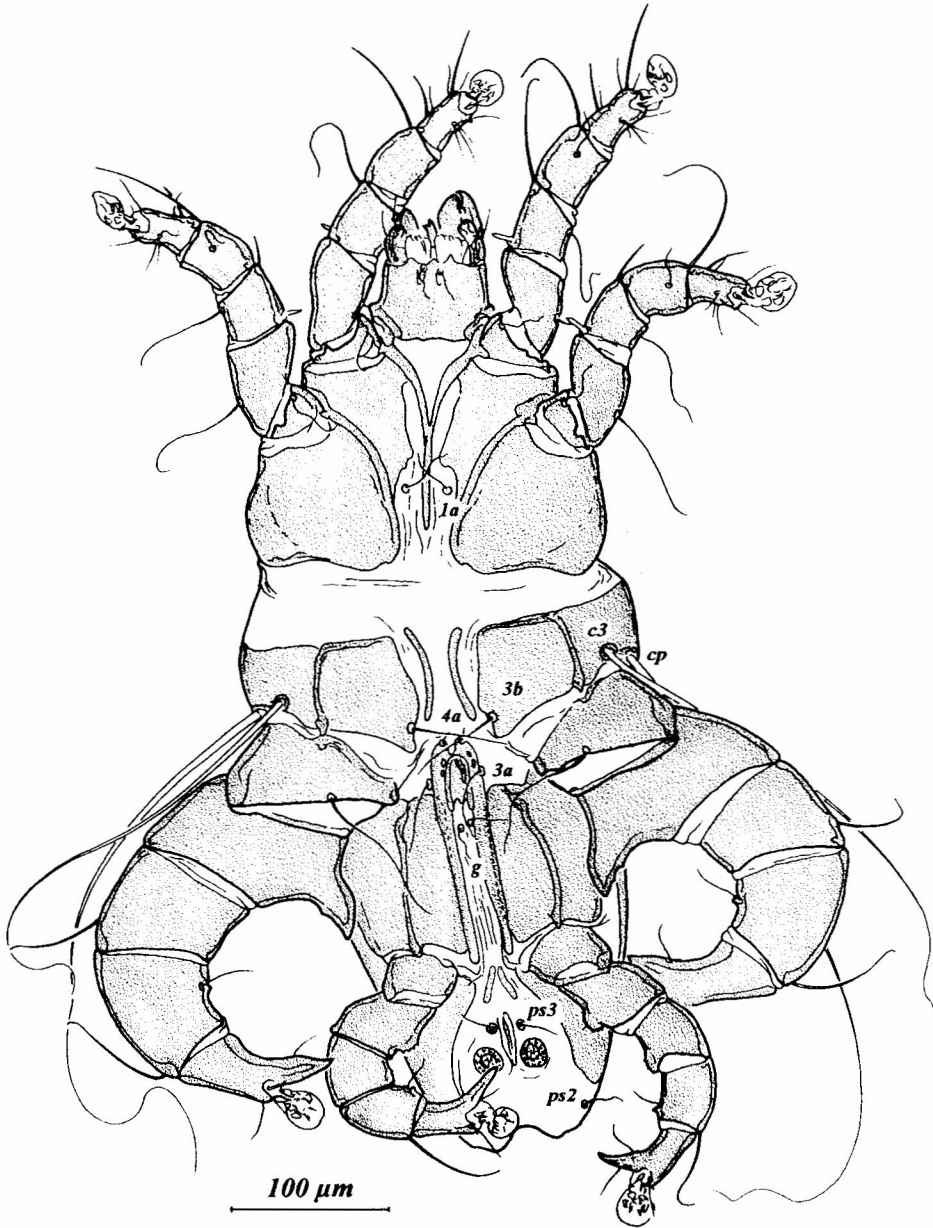
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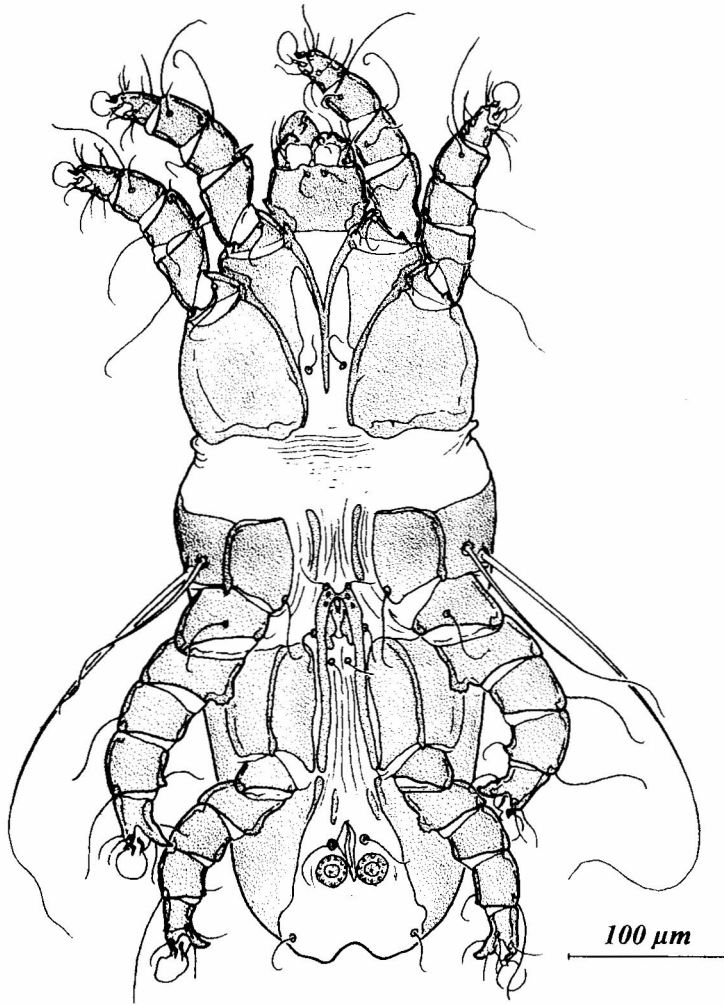
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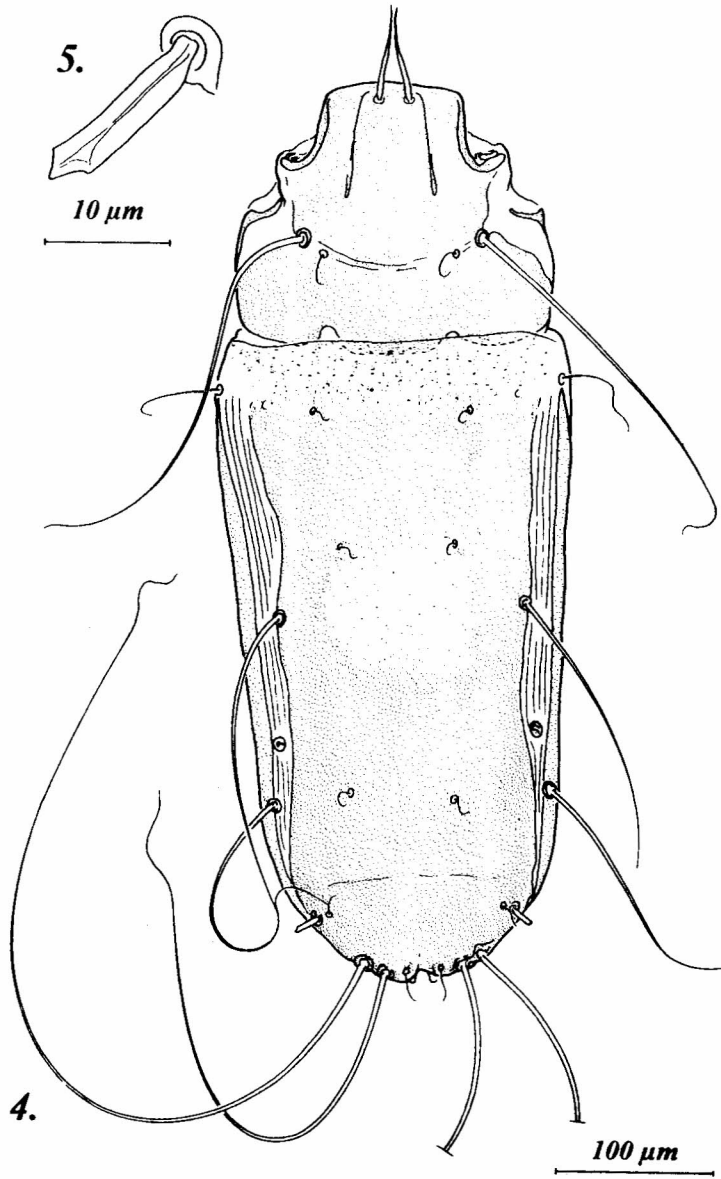
1. *Sammonica cristagalli* sp.n. dorsal view of heteromorph male



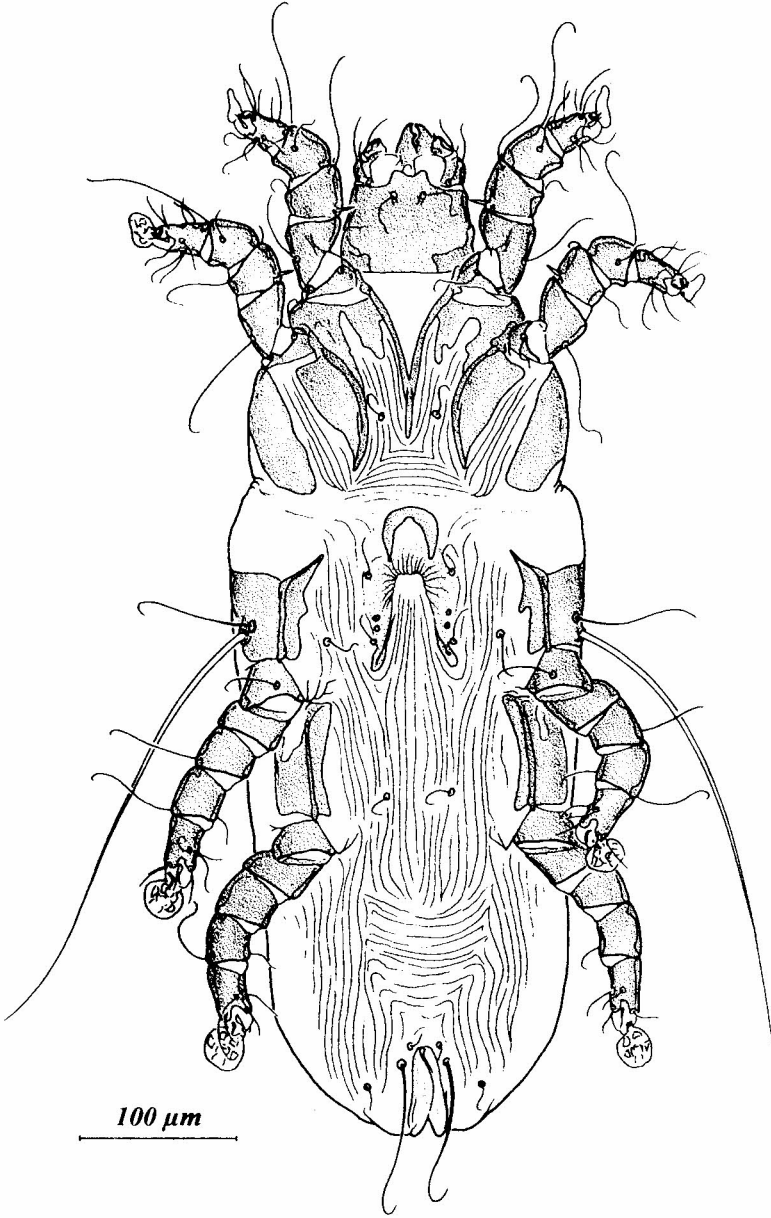
2. *Sammonica cristagalli* sp.n. ventral view of heteromorph male



3. *Sammonica cristagalli* sp.n. ventral view of homomorph male



4-5. *Sammonica cristagalli* sp.n., female: 4 - dorsal view, 5 - seta f2



6. *Sammonica cristagalli* sp.n. ventral view of female