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New *Aceria* and *Acaralox* Species (Acari: Prostigmata: Eriophyoidea) from Hungary on *Alcea rosea* L. (Malvaceae) and *Agrimonia eupatoria* L. (Rosaceae)

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Two new species of eriophyoid mite, *Aceria bendeguzi* **n. sp.**, associated with *Alcea rosea* (Malvaceae) and *Acaralox hungarorum* **n. sp.** from *Agrimonia eupatoria* (Rosaceae), are described and illustrated from Hungary. Morphological differences distinguishing these species from other malvaceous and rosaceous inhabiting congeners are discussed.

Keywords: Eriophyidae, *Aceria*, hollyhock, Malvaceae, *Acaralox*, common agrimony, Rosaceae, Hungary.

In the Hungarian flora, the plant family Malvaceae is represented by 11 indigenous species in 5 genera (Király, 2009). The genus *Aceria* Keifer (Acari: Eriophyidae) is the largest genus represented by more than 900 species world-wide and found on many plant families (Amrine and Stasny, 1994, 1996). In Europe, this genus currently includes approximately 270 described species, mostly being on host plants of several dicotyledonous families (de Lillo, 2012). In Hungary, 111 *Aceria* species have been reported to date comprising 30% of the 372 eriophyoid mite species (Ripka, 2007, 2008). No eriophyoid mite species occupies *Alcea rosea* in Hungary (Ripka, 2007, 2008). Out of 16 *Aceria* species living on malvaceous host plants only one has been found on *Alcea rosea* (Amrine and Stasny, 1994, 1996; Denizhan et al., 2006).

In the Hungarian flora, the family Rosaceae is represented by 167 recognised species in 28 genera (Király, 2009). It amounts to 6.1% of the vascular plants of Hungary. A remarkable range of eriophyoid mites occupy the plants of this family. In Hungary, 13.5% of the known eriophyoid species live on rosaceous hosts (Ripka, 2007). There are only two families inhabited by a similar number of eriophyoid species, viz. Salicaceae (9%) and Asteraceae (8%). Out of over 4400 known eriophyoid species (Zhang et al., 2011) more than 225 species have been reported from the members of family Rosaceae around the world. In Europe, the genus *Acaralox* Keifer (Acari: Eriophyoidea: Eriophyi-

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dae) currently includes two described species, *Acaralox arundinaceus* Skoracka and *Acaralox croatiae* Skoracka, Labrzycka et Rector (Skoracka, 2002; Skoracka et al., 2009). In the Hungarian fauna no *Acaralox* species have been reported (Ripka, 2007, 2008), and no *Acaralox* species have hitherto been found on common agrimony (*Agrimonia eupatoria* L.) (Rosaceae) in the world (Davis et al., 1982; Amrine and Stasny 1994, 1996; Liu et al., 2013). In Hungary, *Aceria anserina* (Liro) was reported (Farkas, 1966), while *Aculus castriferrei* Ripka was recently described (Ripka, 2014) from common agrimony. *Calepitrimerus pilosus* Xue, Guo et Hong was described from hairy agrimony (*Agrimonia pilosa* Ledebour) in China (Xue et al., 2013).

Materials and Methods

The eriophyoid mite fauna of hollyhock, *Alcea rosea* L. and common agrimony or church steeples, *Agrimonia eupatoria* L. were studied from plant samples collected in Budapest XXII, Budatétény, Central Hungary, in September 2013, and Budapest II, Pesthidegkút, Central Hungary, in July 2013 and June 2014, respectively. The plant material (including leaves, petioles, stems, buds and flowers) was collected and placed in plastic bags, then returned to the laboratory and examined under a stereo dissecting microscope (Zeiss Stemi 2000-C). Eriophyoid mites found were placed directly into 88% lactic acid with the aid of a bent pin. After clearing the specimens in lactic acid for about 4–6 weeks at room temperature to obtain the desired extent of clearing, the mites were placed into Keifer's F-medium with sorbitol on microscope slides (Keifer, 1975). The slide-preparations were dried for about four weeks at room temperature and then sealed with commercial nail varnish (Upton, 1991). Specimens were examined with the aid of a phase contrast compound microscope (Nikon Eclipse E 600) equipped with a drawing tube (Nikon Y-IDT).

Mite morphology of specimens collected on hollyhock (e.g. coxigenital region of female) was also investigated with the aid of scanning electron microscopy (SEM) (Zeiss EVO 40 XVP) at the Research Centre for Natural Sciences, Hungarian Academy of Sciences, Budapest, Hungary. Live mites were collected individually with a fine entomological needle from fresh plant parts under a stereomicroscope and placed directly on the SEM holder without fixation, dehydration and coating.

The generic classification follows Amrine et al. (2003) and comparisons were also made with new genera described since that publication. The terminology and setal notation used in the morphological description follows Lindquist (1996). The number of measured specimens (n) is given within parentheses in the description. All measurements of mites were made according to Amrine and Manson (1996) using an ocular micrometre eyepiece and are given in micrometres (μm). Measurements and means are rounded off to the nearest integer, when necessary. All measurements, unless specified otherwise, are lengths. Because some measurements of the holotype specimen could not be taken due to the mounting position, mean measurements are reported. Range values are given in parentheses except in cases of constant value. For males, only the ranges are given.

The holotype and paratype slide mounts of the new species are deposited in the following reference collections in Budapest, Hungary: Department of Pest Management

Development and Coordination, Directorate of Plant Protection, Soil Conservation and Agri-environment, National Food Chain Safety Office and Hungarian Natural History Museum.

The names of the plant taxa are used according to Király (2009), Király et al. (2011) and USDA Plants Database (Anonymous, 2015).

Abbreviations in drawings: **AD**. Prodorsal shield; **AL**. Lateral view of anterior body region; **CG**. Female coxigenital region; **em**. Empodium; **GM**. Genital region of male; **IG**. Internal female genitalia; **LO**. Lateral view of annuli; **L1**. Leg I (foreleg); **PM**. Lateral view of posterior opisthosoma.

Taxonomy

Family Eriophyidae Nalepa
Genus *Aceria* Keifer

Aceria bendeguzi n. sp.
(Figs. 1–4)

Differential diagnosis. Legs, coxisternae I and II and opisthosoma with normal complement of setae. Dorsal and ventral annuli with pointed microtubercles close to rear annular margin. Coxisternum I with granules and dashes. Semicircular prodorsal shield with lines, female genital coverflap with ridges.

Description. Female (n = 10). Body yellow, whitish yellow, ochre, vermiform, 262 (205–265), 62 (54–62) wide, 55 (55–62) thick. Gnathosoma 24 (22–25), projecting obliquely downwards; chelicerae 22 (15–22), dorsal palp genual setae *d* 4 (3–5), simple, pedipalp coxal setae *ep* 4 (3–4). Prodorsal shield 27 (25–29), 60 (39–60) wide, half circle, without frontal lobe; shield pattern composed of a broken and faint median line, two complete admedian lines subparallel to median, sinuate. Submedian lines incomplete. In some specimens the admedian and submedian lines broken and faint. All lines partly granular. Granules and irregular dashes between admedian and submedian lines, also between submedian lines and lateral margin of prodorsal shield. Tubercles of scapular setae *sc* 2 (2–3), on rear shield margin, 25 (24–25) apart, diverging, scapular setae *sc* 31 (27–32), directed backwards. Fine granules and dashes laterally between shield margin and dorsal coxae of legs I and II. Legs with all usual segments and setae present. Leg I 33 (30–33), femur 12 (10–12), basiventral femoral setae *bv* 9 (8–10), fine, genu 6 (4–6), antaxial genual setae *l''* 22 (19–22), tibia 5 (5–6), paraxial tibial setae *l'* located at $^1/_3$ ($^1/_3$–$^3/_8$) from dorsal base, 5 (3–5), very fine, tarsus 9 (7–9), paraxial, unguinal tarsal setae *u'* 4 (4–5), solenidion ω 8 (8–9), distally rounded, slightly curved, empodium simple, bilaterally symmetrical, 6 (5–7), with 3 paired rays. Leg II (hind leg) 30 (26–30), femur 10 (10), basiventral femoral setae *bv* 9 (6–9), very fine, genu 4 (3–5), antaxial genual setae *l''* 12 (9–12) very fine, tibia 5 (4–5), tarsus 7 (6–7), paraxial, unguinal tarsal setae *u'* 5 (4–5), solenidion ω 10 (9–10) longer than solenidion ω on leg I, distally rounded, slightly curved, empodium simple, bilaterally symmetrical, 6 (6–7), with 3 paired rays. Minute spinules distally on tibiae on both leg pairs. Coxisternum I with granules and short dashes, coxisternum II with few

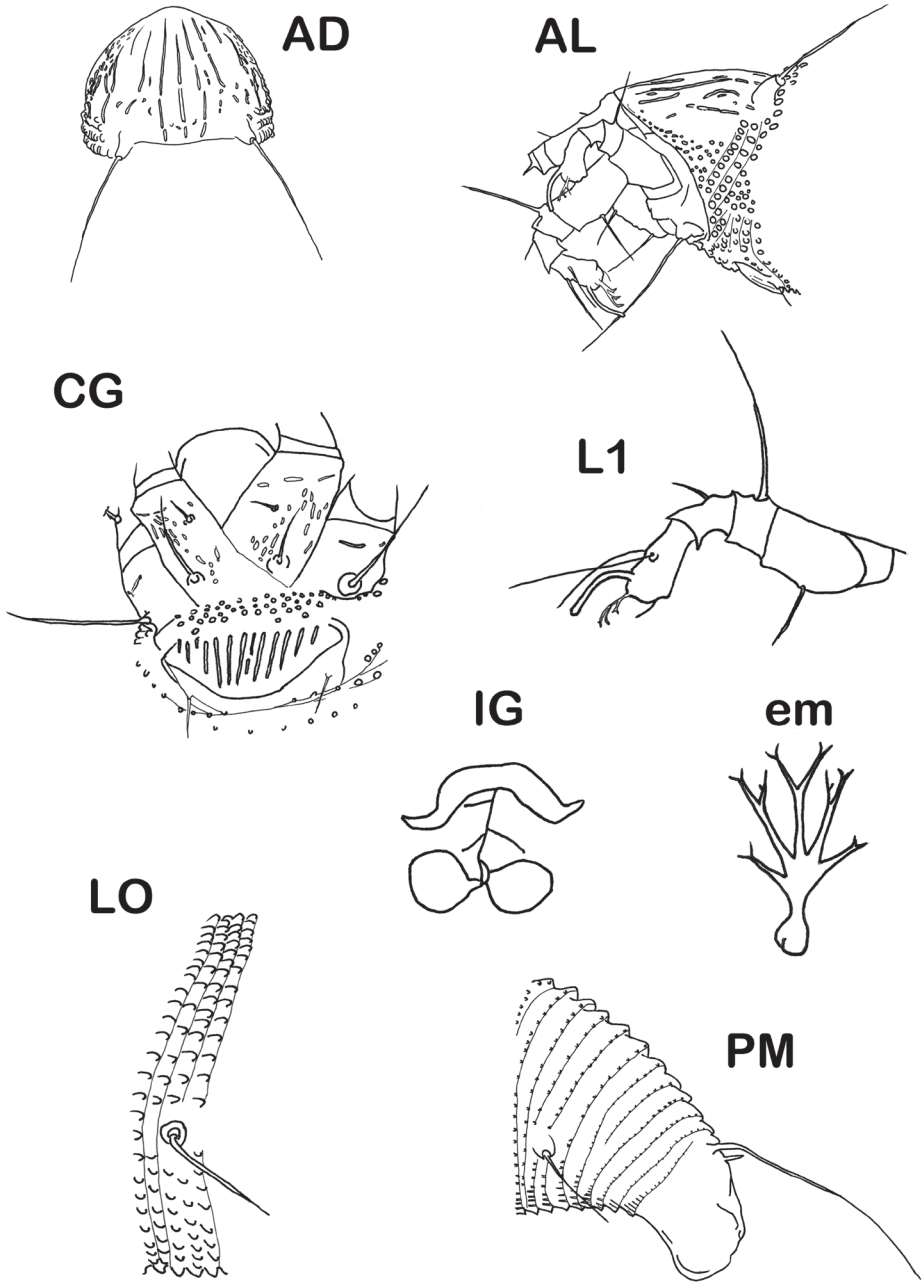

Fig. 1. *Aceria bendeguzi* **n. sp.**, semischematic drawings

transversal dashes; setae *1b* 9 (8–10), tubercles *1b* 11 (10–12) apart; setae *1a* 18 (17–20), tubercles *1a* 10 (9–10) apart, setae *2a* 45 (37–45), tubercles *2a* 25 (23–25) apart. Subcapitular plate subtriangular, anteriorly rounded, smooth. Prosternal apodeme 7 (7–10), forked. Coxigenital area with 5–8 microtuberculate semiannuli. Opisthosoma with 77 (69–77) dorsal annuli, 77 (66–77) ventral annuli. Dorsal and ventral annuli densely microtuberculate. Microtubercles dorsally elongate and pointed close to rear annular margin. Posterior 6 dorsal annuli with minute microtubercles. Microtubercles ventrally smaller and roundish, except for 6–7 ventral annuli near anal lobes, which are elongate, linear and pointed.

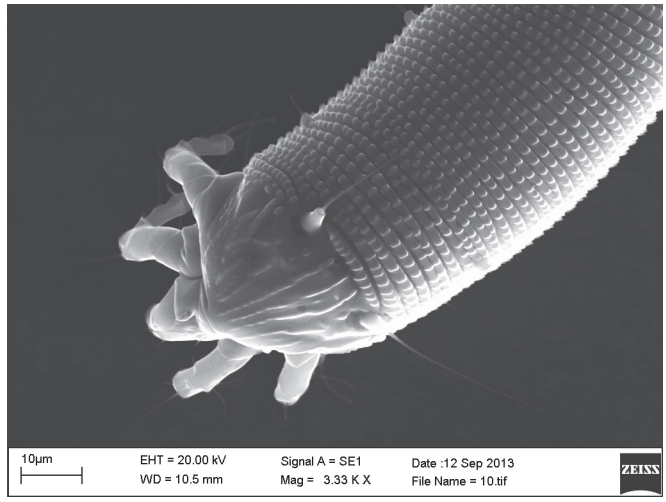

Fig. 2. SEM micrograph of *Aceria bendeguzi* **n. sp.**, anterodorsal view of probably a female

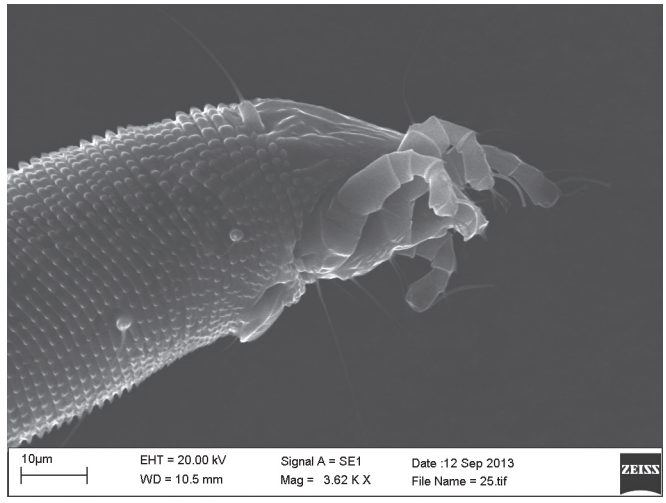

Fig. 3. SEM micrograph of *Aceria bendeguzi* **n. sp.**, anterolateral view of female

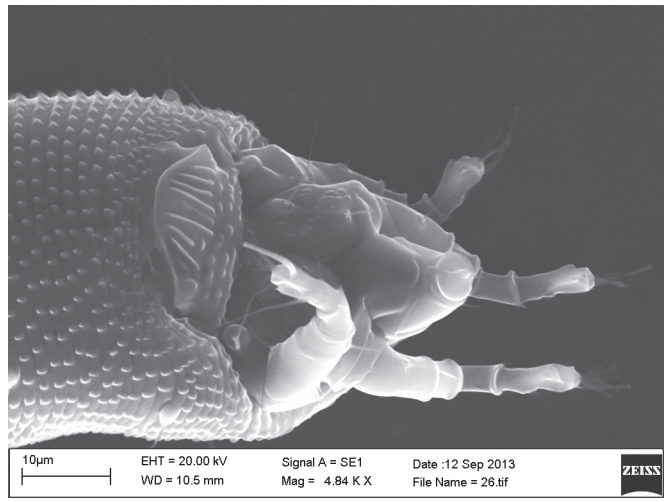

Fig. 4. SEM micrograph of *Aceria bendeguzi* **n. sp.**, ventral view of anterior region of female

Setae *c2* 11 (7–11) considerably short, on annulus 10 (8–10), 40 (40–54) apart. Setae *d* 57 (52–59), on annulus 23 (20–23), 39 (34–39) apart; setae *e* 6 (5–7) considerably short, on annulus 40 (35–40), 22 (19–23) apart; setae *f* 25 (20–25), on annulus 70 (59–70), or 7 (6–7) from rear, 20 (18–20) apart, all very fine towards apex. Setae *h2* 67 (60–68), 11 (10–13) apart; setae *h1* 5 (5–6), 8 (8–9) apart. Genital plate 17 (15–17), 26 (25–27) wide, genital coverflap with 10–13 ridges. Setae *3a* 7 (6–10) considerably short, 15 (15–19) apart.

MALE (n = 4). Similar to female, 160–257, 50 wide, 42–59 thick. Gnathosoma 22–25, projecting obliquely downwards; dorsal palp genual setae *d* 3, simple. Prodorsal shield 25–30, 37–44 wide, without frontal lobe, half circle, shape and ornamentation similar to female. Tubercles of scapular setae *sc* on rear shield margin, diverging, setae *sc* 22–24, directed to the rear. Legs with all usual segments and setae present. Leg I 27–30, femur 8–10, basiventral femoral setae *bv* 7, very fine, genu 4, antaxial genual setae *l"* 15–19, tibia 5–6, paraxial tibial setae *l'* located at $^1/_3$ from dorsal base, 3–4, very fine, tarsus 7–8, solenidion ω 7–9, slightly curved, distally rounded, empodium simple, bilaterally symmetrical, 5, with 3 paired rays. Leg II 22–27, femur 7–8, basiventral femoral setae *bv* 4–7, very fine, genu 3–4, antaxial genual setae *l"* 9–10, very fine, tibia 3–5, tarsus 5–7, solenidion ω 9–10, longer than solenidion ω on leg I, slightly curved, distally rounded, empodium simple, bilaterally symmetrical, 5–6, with 3 paired rays. Minute spinules distally on tibiae on both leg pairs. Coxisternum I with granules and dashes, coxisternum II with few transversal dashes; anterolateral setae on coxisternum I, setae *1b* 3–7, tubercles setae *1b* 12 apart, proximal setae on coxisternum I, setae *1a* 7–14, tubercles setae *1a* 10 apart, proximal setae on coxisternum II, setae *2a* 20–30, very fine, tubercles setae *2a* 22 apart. Subcapitular plate subtriangular, anteriorly rounded, smooth. Prosternal apodeme 5–7, forked. Coxigenital area with 4–6 microtuberculate semiannuli. Opisthosoma with 57–65 dorsal, 58–65 ventral annuli. Dorsal and ventral annuli densely microtuberculate. Microtubercles dorsally elongate and pointed close to rear annular margin. Posterior 6

dorsal annuli with minute microtubercles. Microtubercles ventrally smaller and roundish, except for 6–7 ventral annuli near anal lobes, which are elongate, linear and pointed. Setae *c2* 7–10, on annulus 8–9; setae *d* 43–50, on annulus 17–19; setae *e* 3–8, considerably short, on annulus 31–34; setae *f* 17–20, on annulus 52–59, or 6–7 from rear. Setae *h2* 44–61; setae *h1* 3–4. Genitalia 12–15, 20–25 wide, posteriorly with minute granules, setae *3a* 4–7, considerably short, 14–16 apart.

LARVA and NYMPH unknown.

Host plant. Hollyhock, *Alcea rosea* L. (Malvaceae), an ornamental plant in Hungary.

Relation to the host plant. The mite was found mainly on the underside of the leaves together with *Tetranychus urticae* Koch (Acari: Tetranychidae). The spider mite caused definite damage symptom on the leaves: yellowing and silvering.

Type locality. Budapest XXII, Budatétény, Central Hungary, in the garden of Fruit and Ornamental Plant Growing Research Non-Profit Company of Érd, 47°24'24.2" N, 19°00'39.0" E, 100 m elev.

Type material. Holotype: female (circled with black ink) among 4 females and 2 males paratypes on the same slide (slide # 1331a), coll. Dr László Vajna, 10 September 2013. Paratypes: 2 females and 1 male (slide # 1331b), data same as for holotype. Deposited in the Department of Pest Management Development and Coordination, Directorate of Plant Protection, Soil Conservation and Agri-environment, National Food Chain Safety Office, Budapest, Hungary; 4 females and 1 male (slide # 1331c) deposited in the Hungarian Natural History Museum, Budapest, Hungary.

Etymology. The species is named after the name, Bendegúz. He was the father of Atilla (?–453), the King of Hun Empire (434–453). The gender is feminine.

Differential diagnosis. Until now, one *Aceria* species was recorded on the European members of the genus *Alcea*. In Turkey (Ankara), *Aceria egmirae* Denizhan, Monfreda, Cobanoglu et de Lillo was recently described from *Alcea rosea* (Denizhan et al., 2006). The new species described herein resembles four nominal *Aceria* species living on malvaceous hosts: *Aceria egmirae*, *Aceria elacanthi* Keifer, *Aceria flockii* Keifer and *Aceria gymnoprocta* (Nalepa) (Denizhan et al., 2006; Keifer, 1965, 1970; Nalepa, 1902). The new species described is close to *A. egmirae* from which it differs in having a broken median line (apparently absent in *A. egmirae*), presence of granules and dashes on prodorsal shield (apparently absent in *A. egmirae*), having granules and dashes on coxisternae I–II (apparently smooth coxae in *A. egmirae*) (Denizhan et al., 2006). The new species herein described is close to *A. elacanthi* but the latter has 4-rayed empodium and 55 long setae *sc* (Keifer, 1970). Its host plant is *Malva parviflora* L. The relevant morphological characteristics of *A. gymnoprocta* are as follows: smooth submedian field of prodorsal shield, smooth coxae and 16 μm long opisthosomal setae *d* (Nalepa, 1902; Farkas, 1966). Its host plants are *Malva moschata* L. and *Lavatera thuringiaca* L. (Nalepa, 1902; Farkas, 1966). *Aceria bendeguzi* **n. sp.** can be clearly differentiated as follows: empodium 3-rayed, female genital coverflap with 10–13 ridges; granules and dashes on prodorsal shield and on coxisternum I, dashes on coxisternum II; longer (52–59) opisthosomal setae *d*, distally rounded solenidia, considerably long (27–33) antaxial genual setae *l''* on leg I and its host plant species, *Alcea rosea*. *Aceria bendeguzi* **n. sp.** is the first *Aceria* species to be found inhabiting an *Alcea* sp. in Europe. *Aceria flockii* Keifer was described from

Sida hederacea (Dougl.) (its valid name is *Malvella leprosa* (Ortega) Krapov.) (Malvaceae) in the USA (Keifer, 1965). The pattern of prodorsal shield of *A. flockii* is similar, but it has 4-rayed empodium and 16 longitudinal ridges on female genital coverflap.

Family Eriophyidae Nalepa
Genus *Acaralox* Keifer

Acaralox hungarorum n. sp.
(Fig. 5)

Differential diagnosis. Body vermiform, with wide dorsal furrow; prodorsal shield pattern composed of a short, incomplete median line and two complete sinusoid admedian lines beginning close to posterior margin of the shield; one complete and one incomplete submedian lines on each side; considerably long dorsal palp genual setae *d*; empodium entire, 7-rayed; coxisternum I forming a median sternal line, coxisternae I and II with longitudinal lines; female genital coverflap with longitudinal ridges; subequal microtuberculate dorsal and ventral semiannuli. Coxisternae I and II, legs and opisthosoma with normal complement of setae. Caudal lobes normal in size and shape.

Description. Female (n = 5). Body whitish, vermiform, with wide dorsal furrow, 237 (184–237), 60 (50–60) wide, 57 (55–60) thick. Gnathosoma 22 (20–27), projecting obliquely downwards; chelicerae 17 (13–22), dorsal palp genual setae *d* 12 (10–12), simple. Prodorsal shield 38 (35–40), 38 (36–42) wide, semicircular, without frontal lobe; shield pattern composed of a short, incomplete median line on rear third and two complete sinusoid admedian lines beginning close to posterior margin of the shield, diverging to rear margin; one complete and one incomplete submedian lines on each side. First submedian lines subparallel to admedian lines on anterior three quarters, then curving out ahead of scapular tubercles toward outer side of tubercles setae *sc*. A short transversal line just ahead of tubercles of scapular setae *sc*. Second submedian lines subparallel to lateral margin of shield. Posteriorly few dashes between admedian and first submedian lines, few dashes and granules between submedian lines; few granules between second submedian lines and shield margin. Tubercles of scapular setae *sc* on the rear shield margin, 25 (23–25) apart, diverging, scapular setae *sc* 50 (49–56), directed to backward. Fine granules laterally in rows between shield margin and dorsal coxae of legs I and II.

Legs with all usual segments and setae present. Leg I 38 (33–40), femur 10 (10–11), basiventral femoral setae *bv* 10 (9–10), genu 6 (5–7), antaxial genual setae *l"* 26 (25–27), tibia 7 (6–8), paraxial tibial setae *l'* located at $^1/_3$–$^3/_8$ from dorsal base, 10 (8–10), very thin, tarsus 8 (7–8), solenidion ω 10 (9–10), blunt, curved, empodium simple, bilaterally symmetrical, 9 (8–10), 7-rayed. Leg II (hind leg) 34 (30–35), femur 10 (9–12), basiventral femoral setae *bv* 20 (14–20), genu 6 (5–6), antaxial genual setae *l"* 11 (11–13) very thin, tibia 6 (5–7), tarsus 8 (7–8), solenidion ω 10 (8–10) subequal with solenidion ω on leg I, blunt, curved, empodium simple, bilaterally symmetrical, 8 (7–8), 7-rayed. Small spinules distally on femora and tibiae on both leg pairs.

Coxisternae I and II with several longitudinal lines and dashes; anterolateral setae on coxisternum I, setae *1b* 8 (7–9), tubercles setae *1b* 11 (10–12) apart, proximal setae on

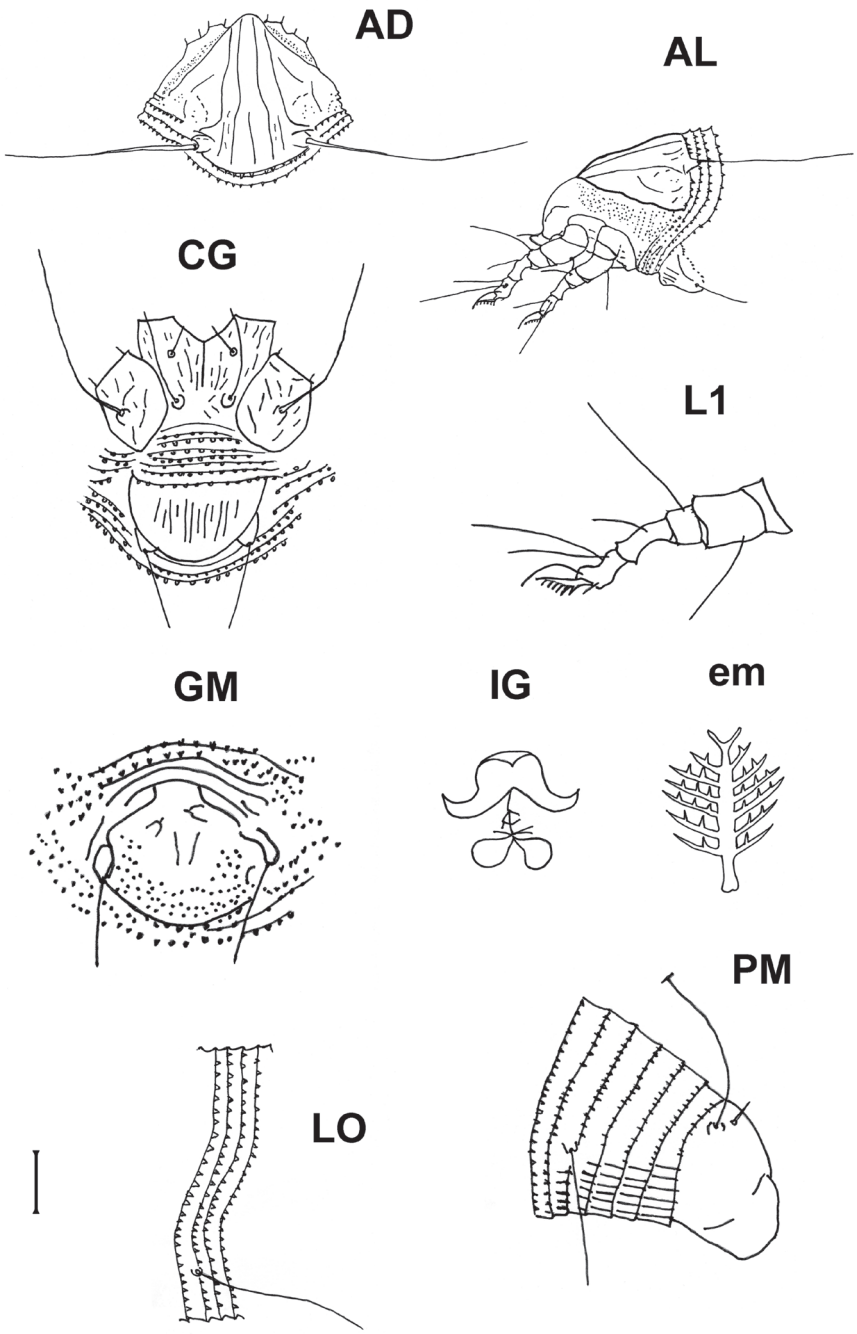

Fig. 5. *Acaralox hungarorum* **n. sp.** – semischematic drawings

coxisternum I, setae *1a* 15 (11–22), tubercles setae *1a* 9 (8–10) apart, proximal setae on coxisternum II, setae *2a* 40 (28–45), tubercles setae *2a* 24 (21–27) apart. Prosternal apodeme 10 (9–10). Coxigenital area with 7 (6–7) microtuberculate annuli.

Opisthosoma with 67 (61–74) dorsal, 71 (62–74) ventral annuli. Dorsal annuli with pointed microtubercles on rear annular margin. On ventral annuli the microtubercles pointed close to the rear annular margin, except for the 5–6 ventral annuli from caudal lobes, which are elongate and linear. Opisthosomal setae *c2* 38 (36–52), on annulus 9 (9–11), 43 (43–48) apart; opisthosomal setae *d* 58 (40–60), on annulus 23 (21–25), 38 (33–38) apart; opisthosomal setae *e* 29 (18–39), on annulus 41 (36–43), 20 (18–20) apart; opisthosomal setae *f* 28 (27–30), on annulus 66 (58–68), or 5 (5–6) from the rear, 19 (19–20) apart, all very thin at apex. Opisthosomal setae *h2* 86 (75–86), 10 (9–10) apart; opisthosomal setae *h1* 3 (3–4), 6 (5–7) apart. Caudal lobes normal in size and shape.

Genital plate 15 (13–20), 24 (23–24) wide. Female genital coverflap with 9–12 longitudinal ridges; coxisternal III setae *3a* 20 (17–20) apart, 22 (13–22).

MALE (n = 1). Similar to the female, whitish, 190, 50 wide. Gnathosoma 20, projecting obliquely downwards; dorsal palp genual setae *d* 10, simple. Prodorsal shield 39, 38 wide, semicircular; shield pattern composed of a short, incomplete median line and two complete sinusoid admedian lines beginning from the posterior margin of the shield; one complete and one incomplete submedian lines on each side. First submedian lines subparallel to admedian lines on anterior three quarters, then curving out ahead of scapular tubercles toward outer side of tubercles setae *sc*. A short transversal line just ahead of tubercles of scapular setae *sc*. Posteriorly few dashes between admedian and first submedian lines, few dashes and granules between submedian lines. Tubercles of scapular setae *sc* on the rear shield margin, 24 apart, diverging, scapular setae *sc* 45, directed to backward. Fine granules laterally in rows between shield margin and dorsal coxae of legs I and II.

Legs with all usual segments and setae present. Leg I 35, femur 11, basiventral femoral setae *bv* 10, genu 6, antaxial genual setae *l"* 21, tibia 6, paraxial tibial setae *l'* located at $^1/_3$ from dorsal base, 8, very thin, tarsus 8, solenidion ω 9, blunt, curved, empodium simple, bilaterally symmetrical, 9, 7-rayed. Leg II 30, femur 11, basiventral femoral setae *bv* 13, genu 5, antaxial genual setae *l"* 11, very thin, tibia 5, tarsus 7, solenidion ω 8, blunt, curved, empodium simple, bilaterally symmetrical, 8, 7-rayed. Small spinules distally on femora and tibiae on both leg pairs.

Coxisternae I and II with several longitudinal lines; anterolateral setae on coxisternum I, setae *1b* 7, tubercles setae *1b* 11 apart, proximal setae on coxisternum I, setae *1a* 11, tubercles setae *1a* 8 apart, tubercles setae *2a* on coxisternum II 24 apart. Prosternal apodeme 8. Coxigenital area with 5 microtuberculate annuli.

Opisthosoma with 60 dorsal, 61 ventral annuli. Dorsal annuli with pointed microtubercles on rear annular margin. On ventral annuli the microtubercles pointed close to the rear annular margin, except for the 4–5 ventral annuli from caudal lobes, which are elongate and linear. Opisthosomal setae *c2* 33, on annulus 9, 45 apart; opisthosomal setae *d* 39, on annulus 18, 33 apart; opisthosomal setae *e* 19, on annulus 33, 17 apart; opisthosomal setae *f* 26, on annulus 57, or 4 from the rear, 18 apart, all very thin at apex. Opisthosomal setae *h1* 3, 7 apart. Caudal lobes normal in size and shape.

Genital plate 17, 20 wide; coxisternal III setae *3a* 17 apart, 10; surface near the genital opening with minute granules.

LARVA and NYMPH unknown.

Host plant. Common agrimony, *Agrimonia eupatoria* L. (Rosaceae) which is a widely distributed perennial herb in Hungary.

Relationship to host plant. This vagrant mite was found on lower side of the leaves, among the dense hairs together with *Aculus castriferrei* Ripka. No damage symptoms were observed.

Type locality. Budapest II, Pesthidegkút, Erzsébetliget, Kővár, 265 m elev.; 47°33'29.0" N, 18°58'14.7" E. The host grows in Budai Tájvédelmi Körzet Nature Conservation Area, on hay-field and in roadside vegetation.

Type material. Holotype female circled with black ink among 2 females paratypes on one slide, 16 July 2013 (slide # 1317a), together with 1 female, 1 male and 1 nymph of *Aculus castriferrei* Ripka, coll. G. Ripka. Paratypes: 1 female and 1 male (slide # 1346b), coll. G. Ripka, together with 4 females of *A. castriferrei*, and 1 female of an unidentified Rhyncaphytoptinae; 1 female (slide # 1346a) together with 1 male and 2 nymphs of *A. castriferrei*, and 1 female of unidentified Tegonotini, 27 June 2014, locality same as for holotype, deposited in the Department of Pest Management Development and Coordination, Directorate of Plant Protection, Soil Conservation and Agri-environment, National Food Chain Safety Office, Budapest, Hungary.

Etymology. The specific name is derived from Latin *Hungarus* = Hungarian, magyar.

Remarks. To date, six *Acaralox* species have been reported in the world: *A. harperi* Keifer, 1966, described from *Cercocarpus montanus* (Rosaceae); *A. bambusae* Kuang, 2002, from *Bambusa* sp. (Poaceae); *A. arundinaceus* Skoracka, 2002 from *Phalaris arundinacea* (Poaceae); *A. farsi* Kamali et Soleimani, 2006, from *Cynodon dactylon* (Poaceae) and *A. croatiae* Skoracka, Labrzycka et Rector, 2009, from *Molinia caerulea* (as *M. coerulea*) and *Calamagrostis epigeios* (both in the family Poaceae); *A. marinae* Li, 2009, from *Avicennia marina* (Avicenniaceae, formerly Acanthaceae) (Keifer, 1966; Kuang, 2002; Skoracka, 2002; Kamali and Soleimani, 2006; Li et al., 2009; Skoracka et al., 2009).

The new species herein described is close to *Acaralox croatiae* (Skoracka et al., 2009), but it is differentiated by shape and dimension of prodorsal shield, e.g. semicircular with equal length and width (38:38) (subtriangular, shorter and wider (35:48) in *A. croatiae*), short transversal line just ahead of tubercles of scapular setae *sc* (lack of transversal lines in *A. croatiae*), distinct prosternal apodeme (indistinct or missing in *A. croatiae*), coxisternae I and II with several longitudinal lines and dashes (with irregular dashes in *A. croatiae*), having more dorsal (61–74) and ventral annuli (62–74) (47–56 and 54–61, respectively in *A. croatiae*), longer opisthosomal setae *e* 29 (18–39) (setae *e* 14 (10–14) in *A. croatiae*), tarsus slightly longer than tibia on legs I and II (tibia longer than tarsus on legs I and II in *A. croatiae*).

The new species resembles *A. marinae* (Li et al., 2009). The prodorsal shield with many short lines laterally, scapular setae *sc* 7.5, coxal area with granules, empodium 5-rayed. Whereas characters of *A. hungarorum* n. sp. are the few granules between second submedian lines and shield margin, scapular setae *sc* 50 (49–56), coxisternae I and II with several longitudinal lines and empodium 7-rayed.

The prodorsal shield pattern and ornamentation on coxisternum I of *Aceria malvacearum* Boczek et Davis found on common mallow (*Malva sylvestris* L.) (Malvaceae) resemble *A. hungarorum* n. sp., but legs I and II of *A. malvacearum* 66 and 50 long, resp., the empodium 8–9-rayed, the prodorsal shield rhomboid and female genital coverflap with 14 ridges (Boczek and Davis, 1984). The new species differs in that the length of legs I and II 33–40 and 30–35, resp., 7-rayed empodium, semicircular prodorsal shield, 9–12 longitudinal ridges on genital coverflap, and the host plant, common agrimony.

New record: *Floracarus atillai* Ripka (Acari: Eriophyidae) was collected and identified from the leaves of *Rhamnus catharticus* L. (Rhamnaceae) in Budapest II, Pesthidegkút, Erzsébetliget, 31 May 2014. The mite caused erineum on the leaves.

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