Records of Six Eriophyid Mites Associated with Plants in Korea[1)]

By

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(*With 13 Text-figures*)

So far as the auther is aware, there has never been any taxonomical information about eriophyid mites from Korea up to the present.

The material on which this report is based was collected by Mr. C. H. Kim, associate professor of Jinju Agricultural College, and sent to the writer for identification. On examination, the specimens were found to belong to the six species in two subfamilies in the family Eriophyidae as follows:

Family Eriophyidae
- Subfamily Eriophyinae
  1. *Aceria daleae* Keifer
  2. *Aceria grewiae* Farkas
  3. *Aceria japonica* Huang
- Subfamily Phyllocoptinae
  4. *Aculops chinonei* Huang
  5. *Aculops niphocladae* Keifer
  6. *Phyllocoptes carilubi* Keifer

Among the species above, four have been recently reproted from Japan (Huang, 1971), but they are all new to Korea.

Key to Six Eriophyid Mites in Korea[3)]

1. Wormlike; with similar rings dorso-ventrally; shield without anterior lobe; chelicera evenly curved when the rostrum is large ....Subfam. Eriophyinae, 2
-. Fusiform usually; tergite broader and fewer than sternites; or anterior shield lobe over rostrum; or with large and tapering rostrum, and chelicera abruptly bent downward .....Subfam. Phyllocoptinae, 3
2. Dorsal shield setae present, pointing backward from rear shield margin, featherclaw 3-rayed, genital coverflap with few irregular ribs .....

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3) Characters for the key are only on related materials of this paper.

.....*Aceria japonica* H.

–. Featherclaw 4-rayed, genital coverflap with about 10 longitudinal ridges .....*Aceria grewiae* F.

–. Featherclaw 5-rayed, gential coverflap with 12–14 longitudinal ridges .....*Aceria daleae* K.

3. Dorsal shield setae arising from ahead of rear shield margin and projecting dorso-centrally, abdomen circular, featherclaw 5-rayed .... *Phyllocoptes carilubi* K.

–. Dorsal shield setae arising from the rear margin and projecting backward 4

4. Genital setae nearly as long as the width of genitalia, a pretty difference of breadth between tergite and sternite .....*Aculops chinonei* H.

–. Genital setae more than two times the width of genitalia, a little difference of breadth between tergite and sternite .....*Aculops niphocladae* K.

Aceria Keifer

Aceria Keifer, 1944, p. 22.

(1) *Aceria japonica* Huang

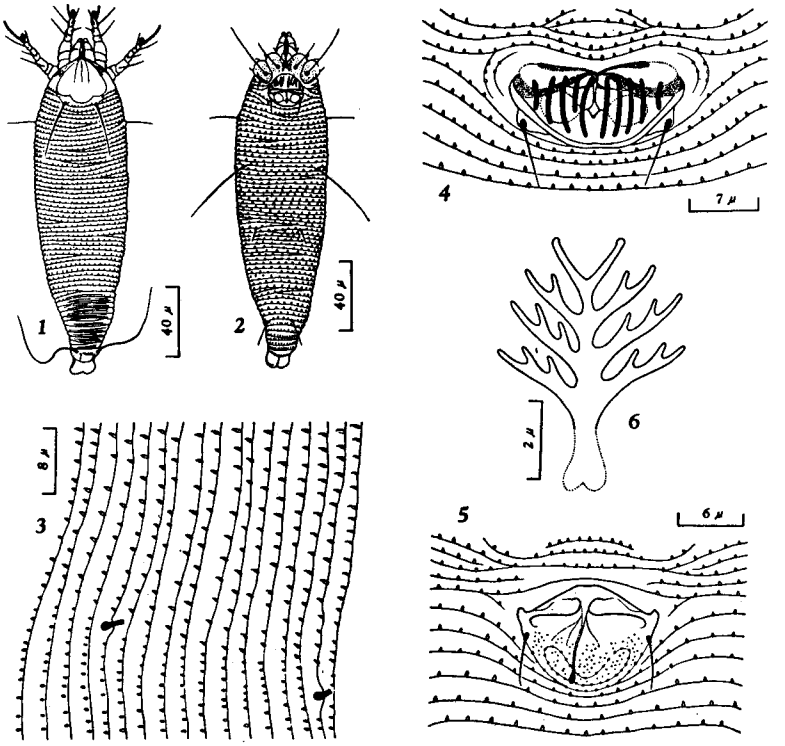
Aceria japonica Huang 1971, p. 258, figs. 1-8.

Female. Shield, ratio of width/length 2.0; dorsal tubercles 15.6–17.4 μ apart; dorsal setae 14.9–19.8 μ long. Abdomen with 44–45 tergites and 41–42 sternites; breadth of tergite 4.4 μ, sternite 4.5μ. Relative lengths of segments of fore-leg: tarsus>claw$\geqq$tibia$\geqq$featherclaw; hind-leg, tarsus$\geqq$claw>tibia. Genitialia 15.9–17.4 μ wide, 9.7–11.4 μ long. Intervals "ts_1-ts_1 and ts_2-ts_2", "ts_3-ts_3 and vs_2-vs_2", "vs_1-vs_1 and ls-vs_1" and "ts_1-ts_2 and ts_2-ts_3" are nearly in the same distance individually. Setae ls as long as ts_2, and vs_1 almost two times as long as vs_2. Relative lengths of setae: cs>ts_3>vs_1>$vs_3$$\geqq$ds$\geqq$$ts_2$$\geqq$ls>$vs_2$>$ts_1$$\geqq$gs>acs. Setae gs on 5–6 sternites, ls on 6–7, vs_1 on 14–16, vs_2 on 22–25, vs_3 on 35–36. Ratio of length/interval between bases of pair ts_1=0.8, ts_2=2.3, ts_3=1.9, ds=0.9, ls=0.4, vs_1=0.8, vs_2=0.8, vs_3=1.3, acs=0.5, cs=4.6, gs=0.6. Average measurements in micra (n=5): body length 175.5, thickness 51, width 52.6; shield length 20.7, width 42.3; length: fore-leg, tibia 5, tarsus 7.7, claw 5.7, featherclaw 4.9; hing-leg, tibia 4.5, tarsus 6.9, claw 6.4; setae ts_1 5.9, ts_2 17, ts_3 34.2, ds 17.9, ls 16.9, vs_1 27.7, vs_2 14, vs_3 20.6, acs 3.8, cs 60.2, gs 5.6; intervals of setae ds-ds 20, ts_1-ts_1 7.8, ts_2-ts_2 7.5, ts_3-ts_3 17.8, gs-gs 10, ls-ls 44, vs_1-vs_1 32.7, vs_2-vs_2 17.9, vs_3-vs_3 16.4, cs-cs 13.1, acs-acs, 8.3, ts_1-ts_2 6.5, ts_2-ts_3 6.7, ts_3-gs 18, gs-ls 17.4, ls-vs_1 32.4, vs_1-vs_2 40.2, vs_2-vs_3 51.3, cs-acs 2.

Specimens examined. Female specimens on *Castanea crenata* Sieb. et Zucc. (Fagaceae) were collected at Jinju, Kyonsangnamdo, Korea, in Aug. 1966, by C. H. Kim.

Distribution and host. Korea (first record), Japan (Huang, 1971); on chestnut.

Remarks. A lot of grainy galls were observed on both sides of the infested leaves, but the greater part was formed on under surface in general. The galls separately stood alone.



Figs. 1–6. *Aceria grewiae.* 1, dorsum, ♀. 2, venter, ♀. 3, side skin structure (left), ♀. 4, genitalia, ♀. 5, genitalia, ♂. 6, featherclaw, ♀.

(2) *Aceria grewiae* Farkas

(Figs. 1–6)

Aceria grewiae Farkas, 1960, p. 429, figs. 1–5.

Female. Body cylindrical, wormlike, yellowish brown to light brown in color. Rostrum bending downward gently. Shield somewhat roundish but a little convex to the front; ratio of width/length 1.5; median line thin and only partially existed anteriorly, admedian lines missing the rear half, a pair of submedian lines completely connecting together, barricading the greater part of shield and forming three round convexities at the rear; dorsal tubercles 9.9–10.7 μ apart, on rear margin; dorsal setae 30.3–32.2μ long, diverging to rear. Abdomen with microtubercles, consisting of 58–61 tergites and 60–64 sternites; breadth of tergite 2.4μ, sternite 2.2μ. Relative lengths of segments of fore-leg: claw>tarsus>feather-

claw≧tibia; hind-leg, claw>tarsus>tibia; coxae ornamented with fine granules, claw curved gently, featherclaw 4-rayed. Genitalia 17.4–17.9μ wide, 10.2–11.2μ long; genital coverflap with about 10 longitudinal ridges. Intervals "gs-gs & ts_3-gs" and "vs_1-vs_1 & vs_1-vs_2" are nearly in the same distance separately; acs-acs and ls-ls are twice as long as ts_1-ts_2 and ts_3-ts_3 individually. Lengths of setae ds to ts_3 and acs to ts_1 are nearly the same, ts_2 is only a half length of ts_3. Relative lengths of setae: cs > vs_1 > ds ≧ ts_3 > ts_2 ≧ ls ≧ vs_3 > vs_2 > gs > ts_1 ≧ acs. Setae gs on 4–5 sternites, ls on 8–10, vs_1 on 18–21, vs_2 on 32–35, vs_3 on 54–58. Ratio of length/interval between bases of pair ts_1=0.6, ts_2=1.8, ts_3=1.8, ds=2.2, ls=0.3, vs_1=1.2, vs_2=0.4, vs_3=1.1, acs=0.5, cs=4.6, gs=0.4. Average measurements in micra (n=5): body length 145.8, thickness 36.7, width 38.5; shield length 20.2, width 30.6; lengths: fore-leg, tibia 4.7, tarsus 6.5, claw 7.8, featherclaw 4.9; hind-leg, tibia 3.7, tarsus 3.5, claw 16.8; setae ts_1 4, ts_2 16, ts_3 31.2, ds 48.5, ls 14.1, vs_1 39.5, vs_2 6.8, vs_3 12.8, acs 3.6, cs 48.5, gs 5.7; intervals of setae ds-ds 14.3, ts_1-ts_1, 7, ts_2-ts_2 8.9, ts_3-ts_3 17.7, gs-gs 13.8, ls-ls 35.9, vs_1-vs_1 32.6, vs_2-vs_2 18.9, vs_3-vs_3 11.3, cs-cs 10.6, acs-acs 7.7, ts_1-ts_2 3.8, ts_2-ts_3 6.3, ts_3-gs 13.7, gs-ls 15.1, ls-vs_1 26.1, vs_1-vs_2 32.9, vs_2-vs_3 44.4, cs-acs 2.1.

Male. Body 126.6μ long, 27.5μ thick, 29.6μ wide. Shield 17.7μ long, 26.4μ wide, ratio of width/length 1.5; dorsal tubercles 11.1μ apart; dorsal setae 26μ long, 14.3μ apart, diverging posteriorly. Abdomen with 53–55 tergites, 56–57 sternites; setae gs on 4–5 sternites, ls on 8–9, vs_1 on 19–20, vs_2 on 30–31, vs_3 on 50–51. The length of genitalia is almost the same as the interval between gential setae. Ratio of length/interval between bases of pair ds=1.8, gs=0.4. Genitalia 13.1μ wide, 10.6μ long; genital setae 4μ long, 10.8μ apart.

Specimens exmained. Female and male specimens on *Grewia paviflora* Bunge (Tiliaceae) at Cheju, Chejudo, Korea were collected in Aug. 1966, by C. H. Kim.

Distribution and hosts. Korea (first record), Kenya (East-Africa, Farkas, 1960); on Grewia.

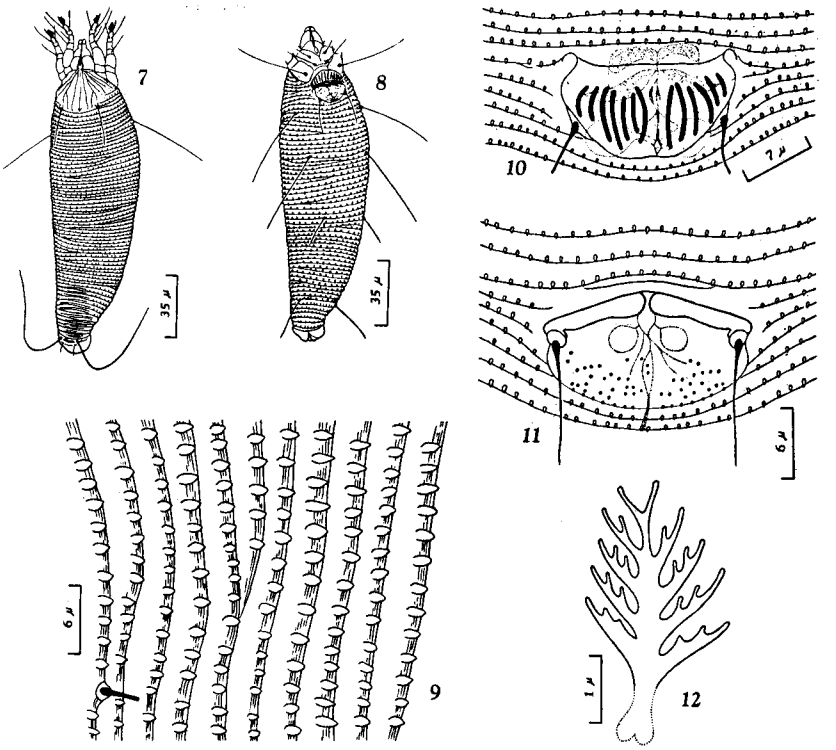
Remarks. According to the information from the collector, the mites make galls on leaves but no any discoloration. The Korean specimens are somewhat different from those of Africa in the shield design and the length of claws. On African specimens, the shield design is more complete than the Koreans; a median and admedian lines exist uncontinuously from the front to the rear but surrounded by the egg-shaped inner branches of submedian lines, the outer branches are protruding outwardly backward and joined to the inner branches at the rear. The claw of hind-leg is only a little longar than that of the fore-leg. On the contrary, on Korean specimens there is no branching from submedian lines; a great distinction in the length of claws between fore- and hind-legs, the latter is more than twice as long as the former. This species was named by Farkas (1960) based on the female specimens alone. The males are described here for the first time. This mite is new to Korea.

(3) *Aceria daleae* Keifer

(Figs. 7-12)

Aceria daleae Keifer, 1960, p. 5, pl. 4.

Female. Body wormlike, somewhat curved, yellowish white to light yellow in color. Rostrum curving downward. Shield subtriangular; ratio of width/length 1.4; shield design with dart-shaped ending of median line but the anterior of which is faint, admedian lines complete, submedian lines branching and forming two forks, lateral lines existing; dorsal tubercles 15.4–16.9μ apart, on posterior margin; dorsal setae 17.4–19.8μ long, projecting to rear. Abdomen with pointed microtubercles on rear margin of rings, consisting of 66–67 tergites and 58–61 sternites; breadth of tergite 2μ, sternite 2.1μ. Relative lengths of fore-leg: tarsus>claw>tibia>featherclaw; hind-leg, claw>tarsus$\geqq$ tibia; claw a little curved and tapering; featherclaw 5-rayed. Genitalia 16.9–17.4μ wide, 11.4–11.9μ long; genital coverflap with 12–14 longitudinal ridges. Interval of ts_3-ts_3 is just the same as vs_2-vs_2; "acs-acs & ts_2-ts_2" and "ts_1-ts_1 & ts_2-ts_3" are nearly in the



Figs. 7–12. *Aceria daleae*. 7, dorsum, ♀. 8, venter, ♀. 9, side skin structure (left), ♀. 10, genitalia, ♀. 11, genitalia, ♂. 12, featherclaw, ♀.

same distance respectively; gs-gs is only a half distance of vs_1-vs_1. The length of gs is just the same as the width of genitalia, ls is almost two times as long as vs_3. Relative lengths of setae: cs>vs_1≧ls>ts_3>vs_3≧ds≧gs≧vs_2≧ts_2>ts_1>acs. Setae gs on 5–6 sternites, ls on 9–10, vs_1 on 19–21, vs_2 on 33–35, vs_3 on 52–54. Ratio of length/interval between bases of pair ts_1=0.9, ts_2=2.3, ts_3=2, ds=1, ls=1.2, vs_1=1.5, vs_2=0.8, vs_3=1.2, acs=0.8, cs=6.1, gs=1.1. Average measurements in micra (n=5): body length 158.5, thickness 45.2, width 46; shield length 24.4, width 35.2; lengths: fore-leg, tibia 5.6, tarsus 8.2, claw 7, featherclaw 3.1; hind-leg, tibia 6.1, tarsus 6.2, claw 7.5; setae ts_1 7.4, ts_2 15.4, ts_3 39.3, ds 18.8, ls 46, vs_1 46.4, vs_2 16.1, vs_3 22.8, acs 5.3, cs 62.7, gs 17.2; intervals of setae ds-ds 19.1, ts_1-ts_1, 7.8, ts_2-ts_2 6.6, ts_3-ts_3 19.4, gs-gs 15.5, ls-ls 38.5, vs_1-vs_1 30.9, vs_2-vs_2 19.4, vs_3-vs_3 18.7, cs-cs 10.2, acs-acs 6.5, ts_1-ts_2 5.1, ts_2-ts_3 7.5, ts_3-gs 15.3, gs-ls 14, ls-vs_1 24.8, vs_1-vs_2 31.3, vs_2-vs_3 40.2, cs-acs 2.4.

Male. Body 145.3μ long, 44.8μ thick, 47.4μ wide. Shield 24.8μ long, 35.5μ wide, ratio of width/length 1.4; dorsal tubercles 17.4μ apart; dorsal setae 17.6μ long, 19.8μ apart, curving posteriorly. Abdomen with 63–65 tergites, 60–63 sternites; setae gs on sixth sternite, ls on 8–9, vs_1 on 20–21, vs_2 on 33–36, vs_3 on 54–56. The lengths of genital setae are nearly the same as that of genitalia. Ratio of length/interval between bases of pair ds=0.9, gs=0.7. Genitalia 18μ wide, 12.1μ long; genital setae 12.2μ long, 16.3μ apart.

Specimens examined. Female and male specimens on *Indigofera Koreana* Ohwi (Korean Indigo) (Leguminosae) were collected at Jinju, Kyonsangnamdo, Korea, in Aug. 1966, by C. H. Kim.

Distribution and hosts. Korea (first record), U.S.A. (Keifer, 1960); on Indigo.

Remarks. The galls on the leaves were formed by the mites, but the leaves didn't become discolored. This mite was named by Keifer (1960) based on female specimens alone. The males are described here for the first time. The mite is new to Korea.

Phyllocoptes **Nalepa**

Phyllocoptes Nalepa, 1889, p. 148.

(4) ***Phyllocoptes carilubi*** **Keifer**

Phyllocoptes carilubi Keifer, 1938, p. 306, pl. 27; 1952, p. 51, pl. 25–7. Huang, 1971, p. 264, figs. 25–33.

Female. Shield, ratio of width/length 1.2; dorsal tubercles 14.6–16.4μ apart; dorsal setae 6.2–7.2μ long. Abdomen including 47–53 tergites and 70–74 sternites; breadth of tergite 2.6μ, sternite 2.3μ. Relative length of segments of fore-leg: tibia >claw>tarsus>featherclaw; hind-leg, claw>tarsus>tibia. Genitalia 18.6–21.8μ wide, 11.2–13.6 μ long. Intervals "gs-gs & vs_2-vs_2" and "vs_3-vs_3 & gs-ls" are nearly in the same distance individually; cs-cs is just the same as ts_1-ts_2. Setae ts_3 is almost as long as vs_3, and gs is a little shorter than a half vs_3 or ts_3. Relative lengths of setae: cs>vs_1>ts_3>vs_3>ls>vs_2>ts_2>gs>ds>ts_1>acs. Setae gs on 5–7 sternites, ls on 10–12, vs_1 on 25–27, vs_2 on 45–46, vs_3 on 64–68. Ratio of length/

interval between bases of pair ts_1=0.6, ts_2=1.9, ts_3=1.2, ds=0.4, vs_1=1.2, vs_2=1.2, vs_3=1.3, acs=0.6, cs=6.1, gs=0.9. Average measurements in micra (n=5): body length 166.6, thickness 42.9, width 52.5; shield length 39.6, width 47.4: lengths: fore-leg, tibia 6.7, tarsus 6.2, claw 6.6, featherclaw 5.8; hind-leg, tibia 5.7, tarsus 6.3, claw 7.3; setae ts_1 5.8, ts_2 14.4, ts_3 26.7, ds 6.7, ls 19.6 vs_1 40, vs_2 16.5, vs_3 26.4, acs 3.9, cs 49.8, gs 13; intervals of setae ds-ds 17.8, ts_1-ts_1 10.5, ts_2-ts_2 7.5, ts_3-ts_3 22, gs-gs 14.6, ls-ls 46.7, vs_1-vs_1 33.3, vs_2-vs_2 13.7, vs_3-vs_3 19.8, cs-cs 8.1, acs-acs 6.5, ts_1-ts_2 8.1, ts_2-ts_3 9.1, ts_3-gs 24.9, gs-ls 20.2, ls-vs_1 31.6, vs_1-vs_2 40.1, vs_2-vs_3 43.9, cs-acs 2.2.

Specimens examined. Female specimens on *Rubus coreanus* Miq. (Rosaceae) were collected at Mt. Chiri, Kyonsangnamdo, Korea, in Aug. 1966, by C. H. Kim.

Distribution and hosts. Korea (first record), Japan (Huang, 1971); on raspberry.

Remarks. The infested leaves were rugged irregularly, covered with villi, changed to reddish brown color and withered up finally. The mite is new to Korea.

Aculops Keifer

Aculops Keifer, 1966, p. 9.

(5) *Aculops chinonei* Huang

Aculops chinonei Huang, 1971, p. 268, figs. 39-46.

Female. Shield, ratio of width/length 1.5; dorsal tubercles 19.8–20.3μ apart; dorsal setae 19.8–22.8μ long. Abdomen with 33–34 tergites and 68–71 sternites; breadth of tergite 4.8μ, sternite 2.8μ. Relative lengths of segments of fore-leg: tibia$\geqq$claw>tarsus>featherclaw; hind-leg, claw>tibia>tarsus. Genitalia 19.8–22.3 μ wide, 12.2–12.9μ long. Interval of ts_2-ts_2 is completely the same as ts_2-ts_3; "ts_1-ts_1 & ts_2-ts_2", "ts_3-ts_3 & vs_2-vs_2" and "vs_1-vs_1 & ls-vs_1" are almost in the same distance individually. Setae ds to vs_3 and ts_2 to ls are about the same length respectively; ls is nearly a half as long as vs_1. Relative lengths of setae: cs>$vs_1$$\geqq$$ts_3$>ds$\geqq$$vs_3$$\geqq$$ts_2$$\geqq$ls>gs$\geqq$$vs_2$>$ts_1$>acs. Setae gs on 6–8 sternites, ls on 11–13, vs_1 on 24–26, vs_2 on 40–43, vs_3 on 62–66. Ratio of length/interval between bases of pair ts_1=1, ts_2=2.6, ts_3=1.6, ds=0.9, ls=0.4, vs_1=1.1, vs_2=0.6, vs_3=1.5, acs=0.6, cs=4.6, gs=0.8. Average measurements in micra (n=5): body length 187.7, thickness 48.9, width 54; shield length 29.3, width 43.1; lengths: fore-leg, tibia 6.7, tarsus 5.9, claw 6.6, featherclaw 5; hind-leg, tibia 6.1, tarsus 5.4, claw 7.4; setae ts_1 7.5, ts_2 19.2, ts_3 30, ds 21.6, ls 18.8, vs_1 37.2, vs_2 11.7, vs_3 21.1, acs 4.1, cs 48.1, gs 12.6; intervals of setae ds-ds 24.3, ts_1-ts_1 7.7, ts_2-ts_2 7.3, ts_3-ts_3 18.2, gs-gs 15.6, ls-ls 47.3, vs_1-vs_1 34.9, vs_2-vs_2 18.8, vs_3-vs_3 14.5, cs-cs 10.5, acs-acs 7, ts_1-ts_2 5.4, ts_2-ts_3 7.3, ts_2-gs 19.3, gs-ls 18.5, ls-vs_1 34, vs_1-vs_2 40.2, vs_2-vs_3 57.5, cs-acs 2.5.

Specimens examined. Female specimens on *Rhus javanica* Linn. (Anacardiaceae) were collected at Mt. Chiri, Kyonsangnamdo, Korea, in Aug. 1966, by C.H. Kim.

Distribution and hosts. Korea (first record), Japan (Huang, 1971), on Java sumac.

Remark. The injured leaves became uneven and with the coverage of villi. The mite is new to Korea.

(6) *Aculops niphocladae* Keifer

(Fig. 13)

Aculops niphocladae Keifer, 1966, p. 19, pl. 10; Huang, 1971, p. 267, figs. 47-51.

Female. Shield, ratio of width/length 1.3; dorsal tubercles 21.1–22.3μ apart; dorsal setae 44.4–52.1μ long. Abdomen consisting of 56–62 tergites and 65–68 sternites; breadth of tergite 3μ, sternite 2.8μ. Relative lengths of segments of fore-leg: tibia>tarsus>claw>featherclaw; hind-leg, claw>tibia>tarsus. Genitalia 22.3–23.3μ wide, 15.1–17.4μ long. Intervals "ds-ds & vs_3-vs_3", "ts_2-ts_2 & ts_2-ts_3" and "ts_3-ts_3 & ts_3-gs" are about in the same distance individually. Setae ts_3 to vs_1 and gs to vs_3 are almost the same length separately. Relative lengths of setae: cs>vs_1≧ts_3≧ds>gs≧vs_3≧ls≧vs_2>ts_2>ts_1>acs. Setae gs on 7–8 sternites, ls on 11–13, vs_1 on 24–26, vs_2 on 41–43, vs_3 on 59–62. Ratio of length/interval between bases of pair ts_1=0.6, ts_2=2.4, ts_3=2, ds=1.9, ls=0.6, vs_1=1.4, vs_2=1.5, vs_3=1.3, acs=0.8, cs=8.9, gs=2.1. Average measurements in mcira (n=5): body length 196.6, thickness 54, width 57.7; shield length 35.2, width 47.2; lengths: fore-leg, tibia 9.8, tarsus 7.7, claw 7.5, featherclaw 6.3; hind-leg, tibia 7.7, tarsus 7.5, claw 7.8; setae ts_1 7.2, ts_2 19.3, ts_3 49.4, ds 48.6, ls 30.2, vs_1 49.5, vs_2 30, vs_3 34.3, acs 4.5, cs 79, gs 35; intervals of setae ds-ds 26, ts_1-ts_1, 12, ts_2-ts_2 8.1, ts_3-ts_3 24.9, gs-gs 16.7, ls-ls 53.2, vs_1-vs_1 34.6, vs_2-vs_2 19.7, vs_3-vs_3 25.5, cs-cs 8.9, acs-acs 6, ts_1-ts_2 7.5, ts_2-ts_3 8.5, ts_3-gs 24.7, gs-ls 21.4, ls-vs_1 36.4, vs_1-vs_2 43.2, vs_2-vs_3 47.3, cs-acs 2.3.

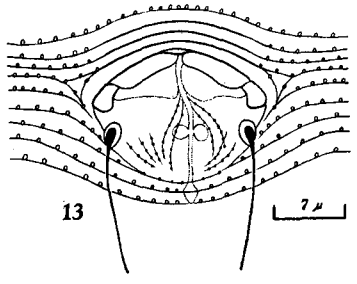


Fig. 13. *Aculops niphocladae*, ♂ genitalia.

Male. Body 155.9μ long, 52.1μ thick, 56.8μ wide. Shield 30.4μ long, 48.4μ wide, ratio of width/length 1.6; dorsal tubercles 24.5μ apart; dorsal setae 32.2μ long, 28μ apart, projecting backward. Abdomen with 50–53 tergites, 58–60 sternites; setae gs on 7–9 sternites, ls on 11–12, vs_1 on 22–23, vs_2 on 37–38, vs_3 on 52–54. The length of genital setae is a little longer than the interval between

them. Ratio of length/interval between bases of pair ds=1.2, gs=1.1. Genitalia 17.3μ wide, 11.2μ long; genital setae 15.8μ long, 14.6μ apart.

Specimens examined. Female and male specimens on *Salix pseudolasiogyne* Levell (Salicaceae) were collected at Jinju, Kyonsangnamdo, Korea, in Aug. 1966, by C. H. Kim.

Distribution and hosts. Korea (first record), Japan (Huang, 1971), Canada (Keifer, 1966), on weeping willow.

Remarks. The damaged leaves became uneven on account of the beady galls formed by this mite. The mite is also new to Korea. This species was named by Keifer (1966) based on female specimens alone. The males are described here for the first time.

Summary

Six species of phytophagous mites of the family Eriophyidae from Jinju, Cheju and Chiri in Korea are treated in the present paper. Among them, three species belong to the subfamily Eriophyinae and remaining three to Phyllocoptinae. Though four species, *Aceria japonica* Huang, *Phyllocoptes carilubi* Keifer, *Aculops chinonei* Huang and *Aculops niphocladae* Keifer are previously known from Japan (Huang, 1971), they as well as the another two species, *Aceria grewiae* Farkas and *Aceria daleae* Keifer are all new to Korea.

The writer wishes to express his sincere thanks to Professor M. Yamada who kindly made invaluable suggestions and reviewal of the manuscript. His cordial thanks are also due to Mr. C. H. Kim who diligently placed the specimens at the writer's disposal.

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