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Summary

KEY TO THE APTERAE VIVIPARAE FEMALES OF THE KNOWN *DYSAPHIS* SPECIES OF IRAN

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Dysahis Börner consists of about 100 species in the world . Up to now, 14 species have been recorded on apple trees, Pear, *crataegus*, *Plantago* spp. *Mentha* sp. *Arctium lappa*, *Eryngium* sp.*Daucus carota*, *Catdaria draba*, and *Rumex acetosa* from Iran, among which, 7 species are new for Iranian fauna. Four species are injurious to apple trees. *D. pyri* has been found very dangerous on *Pyrus communis* and *D. radicola* have been collected only on *Rumex aeetosa*. *Dysaphis* sp. which is a new species for Iranian fauna is similar to *D.plantaginea*, but it differs from that in having only one marginal tubercle in VII tergit, shorter antennae and body length. In this key because of the lack of alatae viviparae in some species, only the apterae viviparae females are described .

1) On pomoideae, infested leaves deformed 2

— on roots, base of stems and leaves located near the roots of herbs 7

2) On apple trees, leaves become rolled transversely or longitudinally 3

— On *Pyrus communis* and *Crataegus* 6

3) Cornicles longer than $^1/_2$ of body length 5 - 8 times as long as their diameter in the middle 4

— Cornicles less than $^1/_2$ of body length and less than 5 times as long as their diameter in the middle. 5

4) Longest hair on abdominal tergit 7 and 8 1 - 1, 2 times as long as the diameter of ant. seg. III and ultimate rostral seg. 1 - 1, 1 times as long as the second seg. of hind tarsus. Cephalic hairs longer than the $^1/_2$ of diameter of ant. seg. III, which are 0, 034 - 0, 045 mm, the same length of diameter of hind tibiae. Marginal tubercles on abdominal seg. VII 2 and VIII 2 - 3, harmful seriousely everywhere. *D.(Pomaphis) plantaginea* (Pass.)

— Longest hair on abdominal seg. VII and VIII less than diameter of ant. seg. III, ult. rostral seg. 1, 2 - 1, 4 times as long as second joint of H. trs. Cephalic hairs less than $^1/_2$ as diameter of 3rd ant. seg., which are 0, 023 - 0, 033 mm and less than $^2/_3$ - $^4/_5$ as diameter of hind tibiae. marginal tubercles on abdominal seg. VIII in all samples always 2, from Orumieh.

Dysaphis sp.

5) Total parts of legs and antennae black, longest hair on 3rd ant. seg. less than diameter of the same segment. Apical part of cauda relatively acute. from Hamadan.

D. affinis Mordv

— At least $^1/_3$ of femura, $^3/_4$ of basal part of tibiae, total part of 3rd ant, seg. and the greater part of ant. seg. IV light. longest hair on ant. seg. III the same length or rarely longer than the diameter of the same seg. infested leaves, turn to yellowish - red rolling longitudinally at the same time, not migrating, life cycle ending in early summer, in moutain region over 1500 m.

D. devecta Walker

6) Antennae at least $^1/_2$ of body length, cornicles 0, 08 - 0, 11 times as the body length, longest hair on 3rd ant. seg. is equal to diameter of the same seg. Marginal tubercles on tergit VII and VIII 2 either. Everywhere on *Pyrus communis* infested leaves become pale or yellowish, rolled transversely, seriously harmful.

D. (Pomaphis) pyri (B. d. F.).

— Antennae at most 0, 35 times and cornicles 0, 05 - 0, 07 times as long as the body length, longest hair on ant. joint III $^1/_3$ times as long as diameter

of the same joint. Marginal tubercles only on tergit VIII 0 - 2. On *Crataegus* spp. in mountain region, migrating during 2nd and 3rd generation on *Daucus* spp.

D. crataegi (Kalt.)

7) Cornicles 0, 065 - 0, 22 times of the body length. 8

— Corincles less than 0, 065 times of the body length. 18

8) On Plantaginaceae 9

— On other hostplants 10

9) Antennae at least $^3/_4$ times and cornicles 0, 16 - 0, 22 times as the body length. Longest hair on 3rd ant. seg. at most $^1/_4$ times of diameter of the same joint. Processus terminalis of ant. seg. VI 3, 5 - 4, 0 times as long as the basal part of same seg. and as long as 3rd ant. seg. Cauda 1, 5 times as long as width. Ult. rostral joint not reaching the hind coxae. Antennal and frontal tubercles well developed, collected on roots and basal leaves of *Plantago lanceolata* in Khomein. Life cycle in Iran unknown,

D. (*Pomaphis*) *aucapariae* (Buckt.)

— Antennae 0, 33 - 0, 48 times and cornicles 0, 064 - 0, 95 times as long as the body length. longest hair on 3rd ant. seg. 1, 0 - 1, 1 times as long as the diameter of the same joint, processus terminalis of VI. ant. joint 2, 6 - 3, 0 times as long as the basal part of the same joint and 0, 9 - 1, 2 times as long as 3rd ant. seg. Antennal and frontal tubercles not developed, Cauda as long as wide. Ult. rostral joint reaching to the hind coxae, collected on roots of *Plantago lanceolata* and *P. major* in Khomein, Mahalat, Tehran, Karadj

D. pulverina subsp. *iranica* Stroyan

10) On Compositae 11

—On other hostplants 12

11) Antennae 0, 37 - 0, 48 times as long as the body length, processus terminalis 2, 4 - 3, 2 times as long as the basal part of VI. ant. seg. and is equal to 3rd ant. seg. Ult. rostral seg. reaching to the hind coxae, which is 1, 44 - 2, 0 times as long as 2nd joint of H. trs. and nearly equal to cornicles in length. Marginal tubercles on tergit VII 2 and rarely 3, longest hair on 3rd ant. seg. $^1/_2$ times as

the diameter of the same seg. On upper part of *Arctium lappa*, collected from Khomein .

D. lappae koch

12) Diameter of hind tibiae equal to medial part of cornicles, which are longer than distance between two antennal bases and 1, 5 - 1, 7 times as long as Ult. rostral joint. On Polygonaceae 13

—Hind tibiae narrower than medial part of cornicles, which are shorter than distance between two antennal bases. On other hostplants 14

13) Longest hair on 3rd ant. seg. $^1/_3$ times, on head $^1/_2$ times as long as diameter of 3rd. ant seg. Hairs on tergit VIII equal to diameter of 3rd. ant . seg. collected on roots of *Rumex acetosa* from Astaneh (Guilan), life ctycle in Iran unkown .

D. radicola Mordv .

14) Processus terminalis 2. 12 - 2, 71 times as long as base of ant. seg. VI on Cruciferae. 15

—Processus terminalis 2, 3 - 4, 25 times as long as base of ant. seg. VI, on other hostplants 16

15) Ultimate rostral seg. 0, 146 - 0, 165 mm, 1, 13 - 1, 36 times as long as the second joint of H. trs. Cornicles short 0, 07- 0, 09 times as long as the body length, and 1, 64 - 2, 0 times as long as cauda, Marginal tubercles on tergit VII and VIII variable and 1 - 3 in number. On leaves of *Cardaria draba*, collected from Karadj .

D. vandenboshi Stroyan, 1970

16) On Umbelliferae 17

—On Labiatae 18

17) Tubercles on tergit VII one and on VIII 2 in number, base of cornicles relatively broad and become, to the distal part, gradually narrower, 1. 2 - 1, 4 times as long as Ult. rostral joint, at apex with apical rim, processus terminalis 2, 8 - 3, 5 time as long as base of VI. ant. jont, collected on roots of *Daucus carota* from Khomein

D. foeniculae (Theob.)

—Tubercles on tergit VII absent, on tergit VIII 1 - 2, cornicles are nearly as long as Ult. rostral seg. processus terminalis 2, 3 - 4, 0 times as basal diameter of the same seg. ant. seg. apex of cornicles without apical rim. On base of stem of *Eryngium* sp. in Ghazvin area,

D. lauberti C. B

18) Cornicles at most 0, 05 mm long and shorter than its broad at base and nearly $^1/_2$ times as long as 2nd joint of hind tarsus. Hairs on tergit VII , VIII, head and longest hair on 3rd ant. seg. with the same length, 0. 048 - 0, 052 mm and 1, 2 - 1, 4 times the diameter of 3rd ant. seg., ult. rostral joint overtop hind coxae. Tubercles on tergit VII and VIII absent. Collected on roots of *Mentha* sp. from Mahalat and Tonekabon .

D. microsiphon Nevsky

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