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Keys to species of Family
Drosophilidae occurring in South Korea

The following six keys will undoubtedly
be modified as the collection progresses.

(1). Key to the species of Genus *Amiota*

1. Mesonotum uniformly dark brown, without markings; legs not banded; 5X-index about 1.5; middle orbital bristle about 2/3 size of first.....albuguttat (Wahlberg).
- Mesonotum with dark markings; legs distinctly banded; 5X-index about 0.8; middle orbital bristles about 1/3 size of first; arista with three or four branches above near base, none below.....variegata Fallen.

(2). Key to the species of Genus *Leucophenga*

1. Arista with dorsal rays only.....argentosa Okada.
- Arista with both dorsal and ventral rays2
2. Wings clear3
- Wings with cloudy markings.....5
3. Palpi very large and black. (but in male palpi small).....magnipalpis Duda.
- Palpi moderate in size4
4. Third to fifth abdominal tergites with caudal bands.....concordia Okada.
- Second to sixth abdominal tergites with black spots. (mesonotum silvery pollinose in male).....maculata Dufour
5. Postvertical bristles much smaller than orbitals.....ornatipennis de Meijere.
- Postvertical bristles well developed, nearly as large as middle orbitals
.....quinquemaculipennis Okada.

(3). Key to the species of Genus *Mycodrosophila*

1. Wings clear; mesonotum uniformly black; thoracic pleura with black patches; second to fifth tergites with black caudal bands, second to fourth tergite bands are broadly interrupted at middle; male fore tibia and tarsi with long recurved upright hairs along anterior margin.....poecilogastra Loew.
- Wings clear; mesonotum uniformly black; thoracic pleura without black patches; second to fifth tergites with black caudal bands, second to third tergite bands are broadly interrupted at middle.....Mycodrosophila sp.

(4). Key to the species of Genus *Microdrosophila*

1. Orb_1 about 1/5 as far from orb_3 as from verticals; mesopleura with a distinct black longitudinal stripe; third costal section with heavy bristles on basal 4/5
.....Microdrosophila sp. I
- Orb_1 about 1/2 as far from orb_3 as from verticals; third costal section with heavy

- bristles on the entire length2
2. Abdomen black; mesopleuron without black longitudinal stripe. *conegster* Zetterstedt
 — Abdomen black; mesopleuron with black longitudinal stripe. *Microdrosophila* sp 2.
- (5). Key to the species of Genus *Seaptomyza*
1. Body yellowish grey; acrostichal hairs in 2 rows; one prominent humerals.....
 *graminum* Fallen.
 — Body greyish brown or black; acrostichal hairs in 4 rows; two humerals2
2. Body greyish brown; costal index about 3.5; third costal section with heavy bristles
 on basal 2/5..... *disticha* Duda.
 — Body greyish black; costal index about 3.0; third costal section with heavy bristles
 on basal 1/3..... *polygonia* Okada.
- (6). Key to the species of Genus *Drosophila*
1. Preapical bristles are small or absent on the first and second tibiae.....2
 — Preapical bristles evident on all three tibiae.....8
2. Mesonotum with distinct longitudinal stripes3
 — Mesonotum without stripes.....6
3. Acrostichals hairs in 8 rows; mesonotum with five narrow longitudinal stripes, me-
 dian longitudinal stripe befits posteriorly..... *busckii* Coquillett.
 — Acrostichals hairs in 6 rows4
4. Crossveins clouded; mesonotum with 4 longitudinal stripes; oral margin and cheeks
 snowy white..... *alboralis* Momma & Takada.
 Crossveins not clouded.....5
5. Mesonotum with 3 pair of narrow longitudinal stripes..... *sexvittata* Okada.
 — Mesonotum with 4 black longitudinal stripes inner pair broaden caudally and outer
 pair interrupted at suture..... *quadrivittata* Okada.
6. Arista with one branch below in addition to terminal fork; abdominal dark band
 not interrupted at middle..... *nokogiri* Okada.
 — Arista with few branches below; abdominal dark band interrupted at middle.....7
7. Orb₂ minute, about 1/5 size of first..... *D. sp. close to histrio.*
 — Orb₂ about 1/3 size of first..... *D. sp. of Hirtodrosophila.*
8. Prescutellar bristles present.....9
 — Prescutellar bristles absent.....11
9. Body yellowish; wings somewhat brownish along costa..... *puncticeps* Okada.
 — Body blackish; wings clear10
10. Acrostichal hairs in 8 rows; third costal section on basal 4/5.....
 *coracina kikkawa & Peng.*
 — Acrostichal hairs in 6 rows; third costal section with heavy bristles on basal 2/3
 *rufifrons* Loew.
11. Abdominal dark bands never broken in mid-dorsal line.....12

- Abdominal dark bands usually narrowed or broken in mid-dorsal line.....20
- 12. Body blackish13
- Body yellowish.....15
- 13. Acrostichal hairs in 6 rows.....helvetica Burla.
- Acrostichal hair in 8 rows14
- 14. Orb₂ about 1/3 size of 1st.....bifasciata Pomini.
- Orb₂ about 1/2 size of 1st; abdominal tergites entirely black.....
.....D. SP. close bifasciata
- 15. Acrostichal hairs in 6 rows.....16
- Acrostichal hairs in 8 rows.....17
- 16. Orb₂ minute, about 1/5 size of other two: C3-bristles on basal 2/5
.....magnipectinata Okada.
- Orb₂ about 1/3 size of 1st; C3-bristles on basal 1/2.....auraria peng.
- 17. Pulpus with a few prominent setae.....melanogaster Meigen.
- Pulpus with only one prominent seta.....18
- 18. Costal index about 4.0; male wings apically with black spots. suzukii Matsumura).
- Costal index about 2.0; male wings apically without black spots.....19
- 19. An indistinct very small blackish spot present in the groove located on the posterior base of fore coxa posterior paramere with basal branch very long.....
.....lutea kikkawa & peng.
- No such blackish spot present; posterior paramere with basal branch very short; body is of small size.....takahashii Sturtevant.
- 20. A pair of presutural bristles present.....testacea van Roser.
- No presutural bristles21
- 21. Yellowish or yellowish brown species.....22
- Blackish or brown species31
- 22. Abdominal tergites with varieties of black spots23
- Abdominal tergites without spots, usually with bands.....24
- 23. Crossveins and wings tip clouded.....nigromaculata kikkawa & Peng.
- wings tip not cloudy, posterior crossveins slightly clouded.....transversa Fallen.
- 24. A row of short stout bristles on lower apical part of each fore femur25
- Fore femur without such a row of bristles.....26
- 25. Posterior crossveins and tip of longitudinal veins cloudy; one prominent bristle at apex of 1st costal section.....immigrans Sturtevant.
- Tip of longitudinal veins not cloudy; two prominent bristles at apex of 1st costal section.....D. sp. of immigrans group.
- 26. Second oral over 3/4 size of vibrissa27
- Second oral 1/3 or less size of vibrissa30
- 27. Crossveins deeply clouded; C3-bristles on basal 1/3D. sp. closeto kuntzei
- Crossveins clear or slightly clouded.....28

28. Acrostichal hairs in 8 rows; abdominal bands become narrow and indistinct as they approach the lateral margin.....histrion Meigen.
 — Acrostichal hairs in 6 rows.....29
29. Third costal section with heavy bristles on basal 1/4; abdominal bands of two basal segment are darken and broaden than those of other segments
bizonata Kikkawa & Peng.
 — Third costal section with heavy bristles on basal 2/5; abdominal black bands broaden laterally.....D. sp. of quinaria section
30. Third costal section with heavy bristles on basal 1/3; acrostichal hairs in 6 rows; arista with about 7 very short branches including minute fork...makinoi Okada
 — Third costal section with heavy bristles on basal 1/2; acrostichal hairs in 8 rowsD. sp.
31. Mesonotum with black spots, carina sulcate; costal index about 3.0.....
repleta wollaston.
 — Mesonotum almost dark brown.....32
32. Abdominal dark band broadly interrupted at middle.....D. sp. of Drosophila.
 — Abdominal tergites uniformly dark brown; band interruption is obscure....33
33. Costal index about 2.5; palpus with only one prominent apical bristles.....
virilis Sturtevant.
 — Costal index about 3.0 or more34
34. Posterior crossveins slightly clouded; genital arch black, anterior and posterior margin or lower portion symmetrically convex, clasper with invariably 9 teeth arranged in a straight row.....cheda Tan, Hsu, and Sheng.
 — Crossveins clear35
35. 5X index about 1.5; genital arch black, anterior margin of lower portion slightly concave, clasper with about 12 black teeth arranged in a shallowly concave rowlacertosa Okada.
 — 5X index about 1.0; genital arch brownish black, anterior and posterior margin of lower portion symmetrically convex, clasper with about 10 black teeth arranged in deeply concave row.....sordidula Kikkawa & Peng.