

Figures 1-4. Eggs, larvae, parasitoids, and pupa of *Cydia plicata* (Walsingham). 1. Section of *Sophora chrysophylla* seedpod with arrows indicating a cluster of three eggs and a single egg. 2. Larva feeding inside *S. chrysophylla* seed. 3. Larvae of parasitoid *Euderus metallicus* (Ashmead 1901) feeding on *Cydia* larva. 4. Pupal exuvia partially protruding from *S. chrysophylla* seedpod.



Figures 5-8. Host plants of Hawaiian *Cydia*. 5. *Sophora chrysophylla* seedpods on Mauna Kea, Hawaii, arrow indicating silk plug made by *C. plicata* larva. 6. *S. chrysophylla* terminal twig at Kokee, Kauai, showing split from previous *C. makai* feeding. 7. *Acacia koa* at Kokee, Kauai, showing flowers and *Uromyces koae* rust gall. 8. *Canavalia galeata* flowers, seedpods, and stems from Punaluu, Hawaii.



dorsum



Figures 9. Wing venation of Cydia parapteryx (Meyrick). The pouch hangs below the wing opening along a thin slit on the upper surface of the wing along the path of the obscured CuP vein.



Figure 10. Hawaiian Cydia wing pattern elements. A and B. C. koaiae n.sp. Oboyski, C. C. plicata (Walsingham).



Figure 11-12. Forewing tips of Hawaiian *Cydia*. 11. Forewing tip of *Cydia mauiensis* showing sinuous termen and crescent-shaped apical patch (arrow) characteristic of the *Canavaliae* group of species. 12. Forewing tip of *Cydia walsinghamii* showing the nearly linear termen and subtriangular apical patch (arrow) typical of most Hawaiian *Cydia*.



Figures 13-18. Hindwing ventral pouch and modified pecten scales. 13. Ventral view of hindwing pouch (arrows) of *Cydia plicata*, 14. Dorsal view showing opening to pouch (arrow) below cubital in *C. plicata*, 15. Base of modified pecten scales of *C. plicata* bending into pouch, 16. Base of modified pecten scales of *C. latiferreana* from California bending into pouch, 17. Tip of modified pecten scale of *C. plicata*, 18. Tip of pecten modified scale of *C. latiferreana*.



Figures 19-24. Hindwing anal roll with modified scales. 19. *C. anomalosa* showing white scales within dorsal pocket of hindwing anal roll. 20. SEM of thecae (androconial scales) along vein A3 in male hindwing of *C. latiferreana*. 21. SEM of hindwing anal roll of *C. anamalosa*. 22. SEM of hindwing anal roll of *C. latiferreana*. 23. SEM of modified scales along the margin of *C. anomalosa* anal roll showing phylliform sex scales. 24. SEM of modified scales along the margin of *C. latiferreana* anal roll showing phylliform and fusiform sex scales.



Figures 25-37. Hawaiian Cydia adult habitus. 25. C. mauiensis. 26. C. falsifalcella. 27. C. falsifalcella. 28. C. parapteryx. 29. C. velocilimitata. 30 C. velocilimitata. 31. C. plicata. 32. C. plicata. 33. C. plicata. 34. C. haleakalaensis. 35. C. latifemoris. 36. C. makai. 37. C. makai



Figures 38-51. Hawaiian *Cydia* adult habitus (continued). 38. *C. koaiae*. 39. *C. koaiae*. 40. *C conspicua*. 41. *C. conspicua*. 42. *C. rufipennis*. 43. *C. rufipennis*. 44. *C. montana*. 45. *C. montana*. 46. *C. montana*. 47. *C. hawaiiensis*. 48. *C. acaciavora*. 49. *C. walsinghamii*. 50. *C. anomalosa*. 51. *C. anomalosa* 



Figures 52-57. Male genitalia 52. *Cydia gypsograpta* – male holotype, slide BM 9543. 53. *C. mauiensis* – male holotype, slide PTO-s254. 54. *C. falsifalcella* – male holotype, slide BM 2051. 55. *C. parapteryx* – slide PTO-s252. 56. *C. velocilimitata* – slide PTO-s170. 57. *C. plicata* – male holotype, slide BM 1885.



Figures 58-63. Male genitalia (continued). 58. *Cydia haleakalaensis* – slide PTO-s339. 59. *C. latifemoris* – allotype, slide BM 2053. 60. *C. makai* – slide PTO-s311. 61. *C. rufipennis* – slide BM 2058. 62. *C. montana* – slide PTO-s323. 63. *C. koaiae* – slide PTO-s333.







Figures. 64-69. Male genitalia (continued). 64. *Cydia conspicua* – slide PTO-s335. 65. *C. hawaiiensis* – slide PTO-s302. 66. *C. acaciavora* – slide PTO-s307. 67. *C. walsinghamii* – slide BM 1892. 68. *C. crassicornis* – holotype, slide BM 1880). 69. *C. anomalosa* – slide PTO-s342.



Figures 70-78. Female genitalia. 70. *Cydia chlorostola* – holotype, slide BM 9546 Clarke. 71. *C. mauiensis* – slide PTO-s154. 72. *C. falsifalcella* – slide PTO-s183. 73. *C. parapteryx* – paralectotype, slide BM 7549. 74. *C. plicata* – allotype, slide BM 1886. 75. *C. obliqua* – holotype, slide BM 1882. 76. *C. storeella* – holotype, slide BM 1881. 77. *C. haleakalaensis* – slide PTO-s318. 78. *C. latifemoris* – holotype, slide BM 2054.



Figures 79-86. Female genitalia (continued). 79. *Cydia makai* – slide PTO-s147. 80. *C. rufipennis* – slide BM 2057. 81. *C. montana* – slide PTO-s322. 82. *C. conspicua* – slide PTO-s336. 83. *C. hawaiiensis* – slide PTO-s42. 84. *C. acaciavora* – slide PTO-s315. 85. *C. walsinghamii* – slide PTO-s308. 86. *C. anomalosa* – slide PTO-s169.