other plant species. Lantana can now be found on all of the main islands in mesic forests, dry shrublands, and other dry, disturbed habitats (Cuddihy and Stone 1990, Smith 1985, Wagner et al. 1990). On Kauai, lantana poses a threat to two populations of Euphorbia haeleeleana and one population of Isodendrion laurifolium within Kuia NAR, three other populations of Euphorbia haeleeleana, three other populations of Isodendrion laurifolium, and one population of Isodendrion longifolium. In the Waianae Mountains of Oahu, one population each of Cenchrus agrimonioides and Cyanea grimesiana ssp. grimesiana and three populations of Schiedea hookeri are immediately threatened by this shrub (HHP 1994d8, 1994e34, 1994g1, 1994g3, 1994g7, 1994g14, 1994h9, 1994h11, 1994h15, 1994h21, 1994m13, 1994m15, 1994m17; HPCC 1993b; Lorence and Flynn 1993).

Psidium cattleianum (strawberry guava), an invasive shrub or small tree native to tropical America, has become widely naturalized on all of the main Hawaiian islands, forming dense stands that exclude other plant species in disturbed areas (Cuddihy and Stone 1990). This alien plant grows primarily in mesic and wet habitats and is dispersed mainly by feral pigs and fruiteating birds (Smith 1985, Wagner et al. 1990). Strawberry guava is considered to be one of the greatest alien plant threats to Hawaiian rain forests and is known to pose a direct threat to at least one population each of Euphorbia haeleeleana and Isodendrion *laurifolium* and four populations of Isodendrion longifolium on the island of Kauai (HHP 1994g7, 1994h11, 1994i15, 1994i16; Lorence and Flynn 1991, 1993). Strawberry guava is a major invader of forests in the Waianae and Koolau Mountains of Oahu, where it often forms single-species stands. It poses an immediate threat to two populations each of Cenchrus agrimonioides and Isodendrion *laurifolium* and one population each of Cyanea grimesiana ssp. grimesiana, Euphorbia haeleeleana, Isodendrion laurifolium, Isodendrion longifolium, and Schiedea hookeri (HHP 1994d8, 1994d12, 1994e34, 1994g13, 1994h18, 1994h20, 1994i2, 1994m12). On Lanai, this invasive alien plant threatens one of that island's populations of Cyanea grimesiana ssp. grimesiana (HHP 1994e37).

Schinus terebinthifolius (Christmas berry), introduced to Hawaii before 1911, is a fast-growing tree or shrub invading most mesic to wet lowland areas of the major Hawaiian Islands (Wagner *et al.* 1990). Christmas berry is

distributed mainly by feral pigs and fruit-eating birds and forms dense thickets that shade out and displace other plants (Cuddihy and Stone 1990, Smith 1985, Stone 1985). It is a major component of the mesic forests of the Waianae and Koolau Mountains of Oahu. Two-thirds of the Cenchrus agrimonioides populations, one-third of the Isodendrion laurifolium populations, 1 of 2 known populations of Phyllostegia parviflora, and 6 of 11 populations of Schiedea hookeri are negatively affected by this invasive plant (HHP 1994d8, 1994d11, 1994d12, 1994d14, 1994h2, 1994h16, 1994h18, 1994h20, 1994m5, 1994m11, 1994m15 to 1994m17; 1994y1).

Rubus rosifolius (thimbleberry), native to Asia. is naturalized in disturbed mesic to wet forest on all of the main Hawaiian Islands (Cuddihy and Stone 1990). On Kauai, this shrub poses a threat to the largest population of Euphorbia haeleeleana, two populations of Isodendrion laurifolium, five populations of Isodendrion longifolium, and one population of Schiedea kauaiensis (HHP 1994g1, 1994h9, 1994h11, 1994i13, 1994i15 to 1994i17; HPCC 1992c2; Lorence and Flynn 1993). One of the two populations of Cyanea grimesiana ssp. grimesiana on Lanai is threatened by thimbleberry (HHP 1994e37).

Clidemia hirta (Koster's curse), a noxious shrub native to tropical America, is found in mesic to wet forests on at least six islands in Hawaii (Almeda 1990, Hawaii Department of Agriculture 1981, Smith 1992). Koster's curse was first reported on Oahu in 1941 and had spread through much of the Koolau Mountains by the early 1960s. Koster's curse spread to the Waianae Mountains around 1970 and is now widespread throughout the southern half of that mountain range. This noxious plant forms a dense understory, shading out other plants and hindering plant regeneration (Cuddihy and Stone 1990). In the Waianae Mountains of Oahu, Koster's curse poses a serious threat to two populations of Cyanea grimesiana ssp. grimesiana, one population of Isodendrion longifolium, the largest population of Phyllostegia parviflora, and one of the largest populations of Schiedea hookeri. Koster's curse also threatens one population of *Isodendrion* laurifolium in Oahu's Koolau Mountains. This prolific alien plant has recently spread to five other islands, and immediately threatens two populations of *Isodendrion longifolium* in Waioli Valley on Kauai, and one of the two populations of Cyanea grimesiana ssp. grimesiana on Molokai

(HHP 1994e7, 1994e34, 1994h17, 1994i2, 1994i17, 1994m11, 1994z1; Lorence and Flynn 1993; H. Bornhorst and S. Perlman, pers. comms. 1992).

Grevillea robusta (silk oak), native to Queensland and New South Wales, Australia, was extensively planted in Hawaii for timber and is now naturalized on most of the main Hawaiian Islands (Smith 1985, Wagner et al. 1990). On Kauai, this alien tree threatens Euphorbia haeleeleana in Hipalau Valley. In the Waianae Mountains of Oahu, silk oak negatively affects one population each of Cenchrus agrimonioides, Euphorbia haeleeleana, Isodendrion laurifolium, Schiedea hookeri, and Schiedea nuttallii (HHP 1994d8, 1994g14, 1994h16, 1994m13, 1994n2).

First introduced to the Hawaiian Islands as cattle fodder, Melinis minutiflora (molasses grass) was later planted for erosion control (Cuddihy and Stone 1990). This alien grass quickly spread to dry and mesic forests previously disturbed by ungulates. Molasses grass produces a dense mat capable of smothering plants, essentially preventing seedling growth and native plant reproduction (Cuddihy and Stone 1990, Smith 1985). Because it burns readily and often grows at the border of forests, molasses grass tends to carry fire into areas with woody native plants (Cuddihy and Stone 1990, Smith 1985). It is able to spread prolifically after a fire and effectively out-compete less fire-adapted native plant species, ultimately creating a stand of alien grass where forest once stood. In the Waianae Mountains on Oahu, molasses grass is a serious threat to one population each of Cenchrus agrimonioides and Euphorbia haeleeleana and two populations of Schiedea hookeri (HHP 1994d11, 1994g10, 1994m8, 1994m11).

Paspalum conjugatum (Hilo grass) is naturalized in moist to wet disturbed areas on all of the main Hawaiian Islands except Niihau and Kahoolawe, and produces a dense ground cover. On Kauai, this perennial grass threatens the Wahiawa Mountains and Waioli Valley populations of Isodendrion longifolium (HHP 1994i15, 1994i17; Lorence and Flynn 1991, 1993). In the Waianae Mountains of Oahu, Hilo grass threatens one population of Cenchrus *agrimonioides* and the largest population of Schiedea hookeri (HHP 1994d11, 1994m13; Lorence and Flynn 1993). In Maui's Kipahulu Valley, this grass threatens the largest known population of Cyanea grimesiana ssp. grimesiana (A. Medeiros, pers. comm. 1994).

*Psidium guajava* (common guava), a shrub or small tree native to the New