

Supporting information to the paper

Hibit, J., Daehler, C.C. Plant functional, biogeographical and phylogenetic diversity are related to native and non-native plant abundance in invaded Hawaiian forests. *Biological Invasions*.

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Online Resource 3. Literature and database sources for trait data

Species	Notes
<i>Acacia confusa</i>	SSD = TRY; Hmax = Wagner et al (1999) (1999); SLA = Penuelas et al (2010)
<i>Acacia koa</i>	SDM and Hmax = TRY; SSD = Asner and Goldstein (1997)
<i>Adenanthera microsperma</i>	SDM and SSD = TRY; Hmax = Orwa et al (2009)
<i>Adenophorus tamariscinus</i> var. <i>tamariscinus</i>	Hmax = Palmer (2003)
<i>Adiantum hispidulum</i>	Hmax = Palmer (2003)
<i>Ageratina adenophora</i>	SDM = TRY; SLA = Feng (2008); Hmax = Wagner et al (1999)
<i>Ageratina riparia</i>	SDM = Murray and Philips (2010); Hmax = TRY
<i>Ageratum conyzoides</i>	SDM = TRY; Hmax = Wagner et al (1999)
<i>Aleurites moluccanus</i>	SDM, Hmax, SSD = TRY; SLA = Ostertag et. Al (2016) SERDP Project
<i>Alyxia stellata</i>	SDM = Bakutis thesis (2005)
<i>Andropogon virginicus</i>	All traits = TRY
<i>Antidesma platyphyllum</i>	SDM = Bakutis thesis (2005); Hmax = Wagner et al (1999)
<i>Ardisia crenata</i>	Hmax = Wagner et al (1999)
<i>Ardisia elliptica</i>	SLA = TRY; Hmax = Wagner et al (1999); SDM = Munoz and Ackerman (2011); SSD = FIA
<i>Arundina graminifolia</i>	Hmax = Wagner et al (1999)
<i>Asparagus densiflorus</i>	Hmax = Gilman (1999)
<i>Asplenium contiguum</i>	Hmax = Palmer (2003)
<i>Asplenium kaulfussii</i>	Hmax = Palmer (2003)
<i>Asplenium macraei</i>	Hmax = Palmer (2003)
<i>Asplenium nidus</i>	Hmax = Palmer (2003)
<i>Athyrium microphyllum</i>	Hmax = Palmer (2003)
<i>Bidens pilosa</i>	Hmax = Wagner et al (1999); SLA = Vaieretti et al (2005)
<i>Bidens torta</i>	SDM = Bakutis thesis (2005); Hmax = Wagner et al (1999)
<i>Bischofia javanica</i>	
<i>Blechnum appendiculatum</i>	Hmax = Palmer (2003)
<i>Broussonetia papyrifera</i>	All traits = TRY
<i>Buddleja asiatica</i>	Hmax and SSD = TRY; SDM = Bakutis (2005); SLA = Penuelas et al (2010)

Online Resource 3. (Continued) Literature and database sources for trait data

Species	Notes
<i>Caesalpinia bonduc</i>	SDM = TRY
<i>Carex meyenii</i>	Hmax = Wagner et al (1999)
<i>Carex wahuensis</i>	Hmax = Wagner et al (1999); SLA = Chau et al (2013)
<i>Casuarina equisetifolia</i>	Hmax and SSD = TRY
<i>Cenchrus ciliaris</i>	SDM and Hmax = TRY; SLA = Chandra and Dubey (2009)
<i>Centella asiatica</i>	SDM and Hmax = TRY; SLA = Devkota and Jha (2009)
<i>Chamaecrista nictitans</i>	Hmax = Wagner et al (1999); 10 seeds measured at Bishop
<i>Charpentiera obovata</i>	SDM = Bakutis (2005); Hmax = Wagner et al (1999); SSD = FIA
<i>Christella dentata</i>	Hmax = Palmer (2003)
<i>Christella parasitica</i>	Hmax = Palmer (2003)
<i>Chrysopogon aciculatus</i>	Hmax = Wagner et al (1999)
<i>Cibotium chamissoi</i>	Hmax and SLA = TRY
<i>Cinnamomum burmannii</i>	SSD = brown 1997; Hmax = Wu-Kuang (2011); SLA = Penuelas et al (2010); 10 seeds measured at Bishop
<i>Citharexylum spinosum</i>	SDM, Hmax, and SSD = TRY
<i>Clidemia hirta</i>	SDM and SLA = TRY; Hmax = Wagner et al (1999)
<i>Coccinia grandis</i>	SDM = TRY
<i>Cocculus orbiculatus</i>	SDM and Hmax = TRY
<i>Coffea arabica</i>	SDM and Hmax = TRY
<i>Colubrina oppositifolia</i>	SSD = FIA; Hmax = Wagner et al (1999); 11 seeds weighed at Bishop
<i>Coprosma foliosa</i>	Hmax = Wagner et al (1999); 10 seeds weighed at Bishop
<i>Cordyline fruticosa</i>	SDM and Hmax = TRY
<i>Crotalaria pallida</i>	SDM = TRY; Hmax = Wagner et al (1999)
<i>Cuphea carthagenensis</i>	SDM = TRY; Hmax = Wagner et al (1999)
<i>Cuscuta sandwicensis</i>	15 seeds weighed at Bishop
<i>Cyperus hypochlorus</i>	Hmax = Wagner et al (1999); 10 seeds measured at Bishop
<i>Cyperus meyenianus</i>	Hmax = Wagner et al (1999)
<i>Cyperus sp.</i>	
<i>Cyrtomium falcatum</i>	Hmax = Palmer (2003)
<i>Deparia petersenii</i>	Hmax = Palmer (2003)
<i>Desmodium incanum</i>	SDM and Hmax = TRY
<i>Dianella sandwicensis</i>	Hmax = Wagner et al (1999); 10 seeds measured at Bishop

Online Resource 3. (Continued) Literature and database sources for trait data

Species	Notes
<i>Dicranopteris linearis</i>	Growth indeterminate; SLA = Allison and Vitousek (2004)
<i>Diellia falcata</i>	Critically endangered; Hmax = Palmer (2003)
<i>Diospyros hillebrandii</i>	Hmax = Wagner et al (1999); 11 seeds measured at Bishop
<i>Diospyros sandwicensis</i>	Hmax = Wagner et al (1999); SDM = Ostertag et. Al (2016) SERDP Project
<i>Diplazium sandwicianum</i>	Hmax = Palmer (2003); SLA = Allison and Vitousek (2004)
<i>Diplopterygium pinnatum</i>	Growth indeterminate
<i>Dodonaea viscosa</i>	Hmax, SSD, and SLA = TRY
<i>Doodia kunthiana</i>	Hmax = Palmer (2003)
<i>Dracaena halaapepe</i>	Hmax = Wagner et al (1999); 10 seeds measured at Bishop
<i>Dryopteris fusco-atra</i>	Hmax = Palmer (2003)
<i>Dryopteris glabra</i>	Hmax = Palmer (2003)
<i>Dryopteris sandwicensis</i>	Hmax = Palmer (2003)
<i>Elaeocarpus bifidus</i>	SSD = FIA; Hmax = Wagner et al (1999); SLA = Penuelas et al (2010)
<i>Elaphoglossum aemulum</i>	Hmax = Palmer (2003)
<i>Elaphoglossum alatum</i>	Hmax = Palmer (2003); SLA = Allison and Vitousek (2004)
<i>Emilia sonchifolia</i>	Hmax = Wagner et al (1999); 28 seeds weighed at Bishop
<i>Epidendrum x obrieniatum</i>	Hmax = Wagner et al (1999)
<i>Erigeron bonariensis</i>	Hmax = Wagner et al (1999); 50 seeds weighed at Bishop
<i>Erythrina sandwicensis</i>	SDM and Hmax = TRY
<i>Euphorbia multiformis</i>	Hmax = Wagner et al (1999); 15 seeds weighed at Bishop
<i>Falcataria moluccana</i>	SDM and SSD = TRY; Hmax = Wagner et al (1999); SLA = Asner et al (2008)
<i>Ficus microcarpa</i>	SDM = TRY; SSD = FIA; Hmax = Little and Skolmen (1989); SLA = avg. of two values given in Asner et al (2008)
<i>Fraxinus uhdei</i>	SDM = TRY; SSD = FIA; Hmax = Wagner et al (1999); SLA = avg. of two values given in Asner et al (2008)
<i>Freycinetia arborea</i>	seeds too small to extract from fruit
<i>Gahnia beecheyi</i>	Hmax = Wagner et al (1999)
<i>Grevillea robusta</i>	All traits = TRY
<i>Heterotis rotundifolia</i>	SDM = TRY; Hmax = Wagner et al (1999)

Online Resource 3. (Continued) Literature and database sources for trait data

Species	Notes
<i>Hibiscus arnottianus</i>	SSD = FIA; Hmax = Wagner et al (1999); SLA = Chau et al (2012); 11 seeds weighed at Bishop
<i>Hibiscus tiliaceus</i>	All traits = TRY
<i>Hymenophyllum lanceolatum</i>	Hmax = Palmer (2003)
<i>Hyptis pectinata</i>	SDM = TRY; Hmax = Wagner et al (1999)
<i>Ilex anomala</i>	SSD = FIA; Hmax = Wagner et al (1999); SDM and SLA = Medeiros et al (2018) from DRYAD
<i>Kadua acuminata</i>	Hmax = Wagner et al (1999); SLA = Penuelas et al (2010); 60 seeds weighed at Bishop
<i>Kadua affinis</i>	Hmax = Wagner et al (1999)
<i>Korthalsella taenioides f. taenioides</i>	Parasitic leafless epiphyte
<i>Lantana camara</i>	All traits = TRY
<i>Lepisorus thunbergianus</i>	Hmax = Palmer (2003)
<i>Leptecophylla tameiameia</i>	Hmax = Wagner et al (1999); SLA = Medeiros et al (2018) from DRYAD; 10 seeds measured at Bishop
<i>Leucaena leucocephala</i>	All traits = TRY
<i>Lindsaea ensifolia</i>	Hmax = Palmer (2003)
<i>Lycopodium venustulum</i>	Horizontal stems
<i>Macadamia integrifolia</i>	SSD = FIA; Hmax = Orwa et al (2009); 12 seeds weighed at Bishop
<i>Machaerina angustifolia</i>	Hmax = Wagner et al (1999); SDM = Loh and Daehler (2007)
<i>Mangifera indica</i>	All traits = TRY
<i>Megathyrsus maximus</i>	SDM = TRY; Hmax = Wagner et al (1999)
<i>Melaleuca quinquenervia</i>	SDM, Hmax = TRY
<i>Melicope cornuta var. decurrens</i>	Endangered; SSD = FIA (spp.); Hmax = Wagner et al (1999); SDM and SLA (spp.) = Ostertag et. Al (2016) SERDP Project
<i>Melicope oahuensis</i>	Hmax = Wagner et al (1999); SDM (spp.) = Ostertag et. Al (2016) SERDP Project
<i>Melinis minutiflora</i>	SDM = TRY; Hmax = Wagner et al (1999); SLA = Baruch and Goldstein (1999)
<i>Metrosideros polymorpha</i>	SLA and Hmax = TRY; SSD = Asner and Goldstein (1997); SDM = Bakutis (2005)
<i>Metrosideros tremuloides</i>	SSD = FIA; Hmax = Rock (1913) (spp.); SLA = Penuelas et al (2010); 103 seeds weighed at Bishop
<i>Microlepidia strigosa</i>	Hmax = Palmer (2003)

Online Resource 3. (Continued) Literature and database sources for trait data

Species	Notes
<i>Mirabilis jalapa</i>	SDM and Hmax = TRY
<i>Morinda citrifolia</i>	SDM, Hmax, and SSD = TRY; SLA = Ostertag et. Al (2016) SERDP Project
<i>Myrsine lessertiana</i>	SLA = TRY; SSD = FIA; Hmax = Wagner et al (1999)
<i>Nephrolepis brownii</i>	Hmax = Palmer (2003)
<i>Nephrolepis exaltata</i>	Hmax = Palmer (2003)
<i>Nestegis sandwicensis</i>	Hmax = Wagner et al (1999); 10 seeds weighed at Bishop
<i>Neurolaena lobata</i>	Formerly <i>Pluchea symphytifolia</i> ; SDM = TRY; Hmax = Wagner et al (1999)
<i>Odontosoria chinensis</i>	Formerly <i>Sphenomeris</i> ; Hmax = Palmer (2003)
<i>Ophioglossum pendulum</i> subsp. <i>Falcatum</i>	Hmax = Palmer (2003)
<i>Oplismenus hirtellus</i>	All traits = TRY
<i>Osteomeles anthyllidifolia</i>	SDM and Hmax = TRY
<i>Oxalis corniculata</i> var. <i>debilis</i>	Hmax = TRY; 10 seeds weighed at Bishop
<i>Pandanus tectorius</i>	SSD = FIA; Hmax = Wagner et al (1999); SDM and SLA = Ostertag et. Al (2016) SERDP Project
<i>Paspalum conjugatum</i>	SDM = TRY; Hmax = Wagner et al (1999)
<i>Paspalum scrobiculatum</i>	SDM = TRY; Hmax = Wagner et al (1999)
<i>Paspalum urvillei</i>	Hmax = Wagner et al (1999)
<i>Passiflora edulis</i>	SDM = TRY
<i>Passiflora suberosa</i>	
<i>Peperomia membranacea</i>	Hmax = Wagner et al (1999); 60 seeds weighed at Bishop
<i>Peperomia tetraphylla</i>	Hmax = Wagner et al (1999); SLA = Feng and Fu (2008); 27 seeds weighed at Bishop
<i>Phlebodium aureum</i>	Hmax = Palmer (2003); SLA = Xiong et al (2018)
<i>Phlegmarius phyllanthus</i>	Hmax = Palmer (2003)
<i>Pipturus albidus</i>	SDM = Bakutis (2005); SSD = FIA; Hmax = Wagner et al (1999); SLA = Medeiros et al (2018) from DRYAD
<i>Pisonia brunoniana</i>	SDM = Bakutis (2005); SSD = FIA; Hmax = Wagner et al (1999); SLA = Asner et al (2008)
<i>Pittosporum glabrum</i>	SSD = FIA; Hmax = Wagner et al (1999)
<i>Pityrogramma calomelanos</i> var. <i>austroamericana</i>	Hmax = Palmer (2003)
<i>Planchonella sandwicensis</i>	SDM and Hmax = TRY

Online Resource 3. (Continued) Literature and database sources for trait data

Species	Notes
<i>Polyscias oahuensis</i>	SSD = FIA (spp.); Hmax = Wagner et al (1999); Seeds not separable from fruit in pressed specimens
<i>Polyscias sandwicensis</i>	SSD = FIA; Hmax = Wagner et al (1999); 10 seeds sampled at Bishop
<i>Polystachya concreta</i>	Hmax = JSTOR global plants; SDM = Lallana et al (2019)
<i>Psidium cattleianum</i>	Hmax and SSD = TRY; SDM = Bakutis (2005)
<i>Psidium guajava</i>	All traits = TRY
<i>Psilotum complanatum</i>	Hmax = Palmer (2003)
<i>Psilotum nudum</i>	Hmax = Palmer (2003)
<i>Psychotria hathewayi</i>	Hmax = Wagner et al (1999); 10 seeds weighed at Bishop
<i>Psychotria hexandra</i>	SSD = FIA; Hmax = Wagner et al (1999); 10 seeds sampled at Bishop
<i>Psychotria kaduana</i>	Hmax = Wagner et al (1999); 10 seeds weighed at Bishop
<i>Psychotria mariniana</i>	SDM = Bakutis (2005); Hmax = Wagner et al (1999)
<i>Psydrax odorata</i>	SSD = TRY; SDM = Bakutis (2005)
<i>Pteridium aquilinum</i> var. <i>decompositum</i>	All traits = TRY
<i>Pterolepis glomerata</i>	SDM = TRY; Hmax = Wagner et al (1999)
<i>Rhyncospora caduca</i>	Hmax = Wagner et al (1999); 19 seeds weighed at Bishop
<i>Rivina humilis</i>	
<i>Rubus argutus</i>	Hmax = Wagner et al (1999); SLA = Baruch and Goldstein (1999); 30 seeds weighed at Bishop
<i>Rubus rosifolius</i>	SDM, Hmax, and SLA = TRY
<i>Sacciolepis indica</i>	Hmax = Wagner et al (1999); 20 seeds weighed at Bishop
<i>Santalum freycinetianum</i>	SSD = FIA; Hmax = Wagner et al (1999); SLA = Penuelas et al (2010); 10 seeds weighed at Bishop
<i>Sapindus oahuensis</i>	Hmax = Wagner et al (1999)
<i>Scaevola gaudichaudiana</i>	Hmax = Wagner et al (1999); 10 seeds measured at Bishop
<i>Scaevola mollis</i>	SSD = FIA (spp.); Hmax = Wagner et al (1999); SLA = McKown et al (2016)
<i>Schefflera actinophylla</i>	SDM and SSD = TRY; Hmax = Wagner et al (1999); SLA = Asner et al (2008)
<i>Schinus terebinthifolius</i>	All traits = TRY
<i>Setaria palmifolia</i>	Hmax = Wagner et al (1999)

Online Resource 3. (Continued) Literature and database sources for trait data

Species	Notes
<i>Sida fallax</i>	SSD = FIA; Hmax = Wagner et al (1999); SDM and SLA = Medeiros et al (2019) from DRYAD
<i>Smilax melastomifolia</i>	10 seeds weighed at Bishop
<i>Spathodea campanulata</i>	SDM and SSD = TRY; SLA = Ostertag et al (2008)
<i>Spathoglottis plicata</i>	Hmax = Wagner et al (1999)
<i>Stachytarpheta cayennensis</i>	Hmax = Wagner et al (1999); Barreto et. Al. (2016)
<i>Streblus pendulinus</i>	SDM = TRY; SSD = FIA; Hmax = Wagner et al (1999)
<i>Syzygium cumini</i>	SDM, Hmax, and SSD = TRY
<i>Toona ciliata</i>	SDM, SSD, and SLA = TRY; Hmax = Wagner et al (1999)
<i>Trichomanes cyrtotheca</i>	Hmax = Palmer (2003)
<i>Trichomanes davalloides</i>	Hmax = Palmer (2003)
<i>Triumfetta semitriloba</i>	Hmax = Wagner et al (1999); 10 seeds measured at Bishop
<i>Viola chamissoniana</i>	Hmax = FWS report; Critically endangered; 10 seeds measured at Bishop
<i>Waltheria indica</i>	
<i>Wikstroemia oahuensis</i>	Hmax = Wagner et al (1999); 11 seeds measured at Bishop
<i>Xylosma hawaiiensis</i>	SSD = FIA; Hmax = Wagner et al (1999); SLA = average of plots from Austin and Vitousek (1998); 15 seeds measured at Bishop
<i>Youngia japonica</i>	Hmax = Wagner et al (1999); 27 seeds measured at Bishop
<i>Zingiber zerumet</i>	Hmax = Wagner et al (1999); unable to obtain any seeds at Bishop or in field