

## Supplementary material

**Table S1** Percent of interceptions of bark- and wood-boring beetles (Coleoptera) by insect family made on wood items, including wood packaging material, at ports-of-entry in various countries by beetle family

Beetle family <sup>a</sup>	Percent (%) of interceptions by Importing country or region					
	Chile	Chile	EPP0	NZ	USA	USA <sup>b</sup>
Bostrichidae	6.8	10.3	1.1	22.5	5.0	-
Buprestidae	5.1	0.8	1.1	2.5	2.9	5.4
Cerambycidae	23.6	11.9	72.2	37.6	19.7	34.4
Curculionidae	1.6	13.5	1.6	5.1	10.5	4.6
Lyctidae	3.3			10.6	1.2	-
Platypodidae	25.3			2.5	0.7	1.8
Scolytidae	34.4	56.4	24.0	19.2	60.0	53.8
<b>Total</b>	770		442	396	8341	6138
<b>Years</b>	1995-1999	2004-2006	1995-2004	1972-1974	1985-2000	2001-2008
<b>Source</b>	Beéche-Cisternas 2000	Sánchez-Salinas 2007	Roques and Auger- Rozenberg 2006	Bain 1977	Haack 2006	Haack et al. 2014

<sup>a</sup>The beetle families listed here were those presented in the above reports. Current taxonomy now places the family Lyctidae as a subfamily (Lyctinae) within the Bostrichidae; and also places the families Platypodidae and Scolytidae as subfamilies (Platypodinae and Scolytinae) within the Curculionidae.

<sup>b</sup>The data here were based on the USDA APHIS PestID database used in Haack et al. (2014), but restricted to the years 2001-2008 to contrast with previous column. This database did not include interceptions of Bostrichidae and Lyctidae.

References for Table S1:

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**Table S2** Common pathways associated with human-assisted transportation of non-native forest insects. Functional groups, orders and historical examples (excluding intentional introduction and establishment in new environments for purposes such as biological control or pollination).

Pathway / Relevant standards	Main forest pest insect functional groups	Main forest pest insect orders	Historical examples	Movement <sup>1</sup>
Live plants, cuttings and seeds ISPM 36, 38, 40	Bark and wood-borers	Coleoptera	Citrus longhorn beetle <i>Anoplophora chinensis</i> Japanese cedar longhorn beetle <i>Callidellum rufipenne</i> Brown twig beetle <i>Xylosandrus morigerus</i>	AS to EU, NA AS to NA, SA, EU, OC(NZ <sup>2</sup> ) AS to AF, NA, SA, EU, OC
	Foliage/bud feeders	Lepidoptera	Light brown apple moth <i>Epiphyas postvittana</i> European shoot moth <i>Rhyaciona buoliana</i>	OC(AUS) to EU, NA, OC(NZ) EU to SA, NA
	Gall-forming	Hymenoptera	Oriental chestnut gall wasp <i>Dryocosmus kuriphilus</i>	AS to EU, NA
	Sap feeders	Hemiptera	<i>Cottony cushion scale Icerya purchasi</i>	OC(AUS) to AF, AS, EU, NA, OC(NZ), SA
		Thysanoptera	Greenhouse thrip <i>Heliothrips haemorrhoidalis</i>	SA to AF, AS, EU, NA, OC, SA
Seed parasites	Hymenoptera	Douglas-fir seed chalcid <i>Megastigmus spermotrophus</i>	NA to EU, OC(NZ)	
Solid wood packaging ISPM 15	Bark and wood-borers	Coleoptera	Emerald ash borer <i>Agrilus planipennis</i> Asian longhorn beetle <i>Anoplophora glabripennis</i> Japanese cedar longhorn beetle <i>Callidellum rufipenne</i> Five-spined bark beetle <i>Ips grandicollis</i> Common pine shoot beetle <i>Tomicus piniperda</i>	AS to NA, EU(RU) AS to EU, NA  AS to NA, SA, EU, OC(NZ <sup>2</sup> )  NA to OC(AU), SA <sup>3</sup> AS, AF (North), EU to NA
		Hymenoptera	Sirex woodwasp <i>Sirex noctilio</i>	AS(North), EU to AF(South) to OC, NA, SA
Roundwood and wood processed to various levels ISPM 39	Bark and wood-borers	Coleoptera	Red turpentine beetle <i>Dendroctonus valens</i> European house borer <i>Hylotrupes bajulus</i> Smaller European elm bark beetle <i>Scolytus multistriatus</i> Redbay ambrosia beetle <i>Xyleborus glabratus</i>	NA, SA to AS EU to AF <sup>3</sup> , AS <sup>3</sup> , NA, OC, SA EU to AF(North), AS, NA, OC, SA AS to NA
		Hymenoptera	Sirex woodwasp <i>Sirex noctilio</i>  Oriental chestnut gall wasp <i>Dryocosmus kuriphilus</i>	AS(North), EU to AF(South) to NA, OC, SA AS to EU, NA

Containers, used vehicles and machinery ISPM 41	Foliage/bud feeders	Hemiptera	Brown marmorated stinkbug <i>Halyomorpha halys</i>	AS to EU, NA, OC <sup>2</sup>
		Lepidoptera	Gypsy moth <i>Lymantria dispar</i> Painted apple moth <i>Teia anartoides</i>	EU to AF(North), AS to NA <sup>4</sup> OC(AU) to OC(NZ)
Marine and air vessels, and land modes of transport	Bark and wood-borers	Coleoptera	Emerald ash borer <i>Agrilus planipennis</i>	AS to NA, EU(RU)
	Foliage/bud feeders	Lepidoptera	Gypsy moth <i>Lymantria dispar</i>	EU to AF(North), AS to NA
	Sap feeders	Hemiptera	Bronze bug <i>Thaumastocoris peregrinus</i> Brown marmorated stinkbug <i>Halyomorpha halys</i>	OC(AU) to EU, NA, OC(NZ), SA AS to EU, NA, OC <sup>2</sup>
Travellers and their personal items	Bark and wood-borers	Coleoptera	Redbay ambrosia beetle <i>Xyleborus glabratus</i>	AS to NA
	Foliage/bud feeders	Lepidoptera	Gypsy moth <i>Lymantria dispar</i>	EU to AF(North), AS to NA <sup>4</sup>
	Sap feeders	Hemiptera	Brown marmorated stinkbug <i>Halyomorpha halys</i> Bronze bug <i>Thaumastocoris peregrinus</i>	AS to EU, NA, OC <sup>2</sup> OC(AU) to EU, NA, OC(NZ), SA
Mail and parcels	Foliage/bud feeders	Phasmatodea	<i>Extatosoma tiaratum</i>	OC(AU) to SA <sup>2,4</sup>

<sup>1</sup> Continent and countries abbreviations: AF = Africa; AS = Asia; AUS = Australia; EU = Europe; NA = North America; NZ = New Zealand; OC = Oceania; SA = South and Central America.

<sup>2</sup> Interceptions only.

<sup>3</sup> Unknown status, native or invasive.

<sup>4</sup> Deliberate import but unintended escape.

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