Supplementary Table S1. Number of interceptions and identity of live wood borers intercepted at selected US ports in wood packaging during 2012 – 2018, by family and genus of infested host wood, origin of the consignment, and larval diet breadth of wood borer species.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Host Plant Family,  Genus | Cerambycidae (No. of interceptions) | Buprestidae (No. of interceptions) | Siricidae (No. of interceptions) | Consignment Origin | Diet Breadth | Source for Diet Breadth |
| **SOFTWOODS**  (Conifer Trees) |  |  |  |  |  |  |
| **Cupressaceae** |  |  |  |  |  |  |
| *Cupressus* |  | Unidentified buprestid (1) |  | Europe (IT) |  |  |
| **Pinaceae** |  |  |  |  |  |  |
| *Abies* | *Anastrangalia dubia* (Scopoli) (6) |  |  | Asia (AE, TR), Europe (FR, RO) | Oligophagous | Brelih et al. 2006, Doychev et al. 2017, Özdikmen 2011, Zumr 1992 |
| *Abies* | *Ceresium* sp. (1) |  |  | Asia (CN) |  |  |
| *Abies* |  | *Chalcophora* sp. (1) |  | Asia (TR) |  |  |
| *Abies* |  | *Eurythyrea austriaca* (Linnaeus) (4) |  | Europe (BA, DE, IT, RO) | Oligophagous | Sakalian 2003 |
| *Abies* | *Megopis* sp. (1) |  |  | Asia (CN) |  |  |
| *Abies* | *Monochamus* sp. (1) |  |  | Europe (IT) |  |  |
| *Abies* | *Monochamus urussovii* (Fischer von Waldheim) (1) |  |  | Europe (IT) | Oligophagous | Cesari et al. 2004; Lim et al. 2014 |
| *Abies* |  | Unidentified buprestids (2) |  | Asia (TR) |  |  |
| *Abies* | Unidentified cerambycids (7) |  |  | Asia (AE), Europe (BA, FR) |  |  |
| *Abies* |  |  | Unidentified siricid (1) | Europe (HU) |  |  |
| *Picea* | *Acanthocinus griseus* (Fabricius) (1) |  |  | Europe (SL) | Polyphagous | Lim et al. 2014 |
| *Picea* | *Anastrangalia dubia* (Scopoli) (1) |  |  | Asia (TR) |  |  |
| *Picea* | *Arhopalus ferus* (Mulsant) (1) |  |  | Europe (ES) | Oligophagous | Wang and Leschen 2003 |
| *Picea\** | *Arhopalus montanus* (LeConte) (1) |  |  | Asia (TR) | Monophagous on *Pinus* spp. | Linsley et al. 1961 |
| *Picea* | *Arhopalus rusticus* (Linnaeus) (3) |  |  | Asia (TR), Europe (DE, IT) | Polyphagous | Lim et al. 2014, Özdikmen 2011 |
| *Picea* | *Arhopalus* sp. (1) |  |  | Europe (ES) |  |  |
| *Picea\** | *Cephalocrius* (=*Arhopalus*) *syriacus* (Reitter) (5) |  |  | Asia (TR), Europe (RO) | Monophagous on *Pinus* spp. | Brelih et al. 2006 |
| *Picea* | *Asemum* sp. (1) |  |  | Asia (KR) |  |  |
| *Picea\** |  | *Buprestis dalmatina* Mannerheim (3) |  | Asia (TR) | Monophagous on *Pinus* spp*.* | Lorubio et al. 2018, Niehuis 1990 |
| *Picea* |  | *Buprestis haemorrhoidalis* Herbst (1) |  | Europe (UA) | Polyphagous | Molino-Olmedo 1999, Sakalian 2003 |
| *Picea* |  | *Buprestis* sp. (3) |  | Asia (CN, TR) |  |  |
| *Picea* | *Callidium coriaceum* Paykull (1) |  |  | Europe (SK) | Oligophagous | Juutinen 1960, Pupavkin and Chernenko 1979, Doychev and Bencheva 2008 |
| *Picea* | *Callidium violaceum* (Linnaeus) (3) |  |  | Asia (RU), Europe (BG, RO) | Polyphagous | Duffy 1953; Lim et al. 2014 |
| *Picea* |  | *Chrysobothris* sp. (2) |  | Asia (TR) |  |  |
| *Picea\** | *Clytus rhamni* Germar (2) |  |  | Europe (CZ, SK) | Polyphagous | Brelih et al. 2006 |
| *Picea* | *Hylotrupes bajulus* (Linnaeus) (3) |  |  | Asia (IL), Europe (FR, IT) | Polyphagous | Brelih et al. 2006, Duffy 1953 |
| *Picea* | *Molorchus minor* (Linnaeus) (3) |  |  | Asia (RU), Europe (RO, SL) | Polyphagous | Brelih et al. 2006, Duffy 1953 |
| *Picea* | *Monochamus galloprovincialis* (Olivier) (4) |  |  | Asia (TR), Europe (ES) | Oligophagous | Brelih et al. 2006, Duffy 1953 |
| *Picea* | *Monochamus sartor (*Fabricius) (4) |  |  | Europe (HU, IT) | Oligophagous | Brelih et al. 2006, Duffy 1953 |
| *Picea* | *Monochamus* sp. (4) |  |  | Asia (RU), Europe (BA, IT, RO) |  |  |
| *Picea* | *Monochamus sutor* (Linnaeus) (2) |  |  | Europe (IT) | Oligophagous | Brelih et al. 2006, Duffy 1953 |
| *Picea* | *Monochamus urussovii* (Fischer von Waldheim) (2) |  |  | Asia (RU), Europe (IT) | Oligophagous | Cesari et al. 2004; Lim et al. 2014 |
| *Picea\** | *Pogonocherus perroudi* Mulsant (4)c |  |  | Asia (TR) | Monophagouson *Pinus* spp. | Brelih et al. 2006 |
| *Picea* |  |  | *Sirex juvencus* (Linnaeus) (2) | Asia (LB), Europe (DE) | Oligophagous | Schiff et al. 2006 |
| *Picea* |  |  | *Sirex* sp. (4) | Asia (LB), Europe (BY, CZ) |  |  |
| *Picea* | *Tetropium castaneum* (Linnaeus) (2) |  |  | Europe (AT, DE) | Oligophagous | Brelih et al. 2006, Duffy 1953, Kimoto and Duthie-Holt 2004 |
| *Picea* | *Tetropium gabrieli* Weise (1) |  |  | Europe (PL) | Oligophagous | Crawshay 1907 |
| *Picea* | *Tetropium* sp. (1) |  |  | Europe (AT) |  |  |
| *Picea* |  | Unidentified buprestids (10) |  | Asia (CN, TR), Europe (UK) |  |  |
| *Picea* | Unidentified cerambycids (32) |  |  | Africa (TN), Asia (IL, TR, KR, RU), Europe (AT, CZ, DE, FR, GR, IT, RO, SK, SL), North America (MX) |  |  |
| *Picea* |  |  | Unidentified siricids (3) | Asia (LB), Europe (DE, PL) |  |  |
| *Picea* |  |  | *Urocerus gigas* *giga*s (Linnaeus) (1) | Europe (CZ) | Oligophagous | Schiff et al. 2006 |
| *Pinus* | *Acanthocinus aedilis* (Linnaeus) (1) |  |  | Europe (IT) | Oligophagous | Lim et al. 2014 |
| *Pinus* | *Acanthocinus griseus* (Fabricius) (2) |  |  | Asia (KR, TR) | Polyphagous | Lim et al. 2014 |
| *Pinus* | *Acmaeops proteus* (Kirby) (1) |  |  | Europe (UA) | Oligophagous | Gardiner 1954 |
| *Pinus* | *Arhopalus montanus* (LeConte) (7) |  |  | North America (MX) | Monophagous on *Pinu*s spp. | Linsley et al. 1961 |
| *Pinus* | *Arhopalus productus* (LeConte) (2) |  |  | North America (MX) | Oligophagous | Eaton and Lyon 1955 |
| *Pinus* | *Arhopalus rusticus* (Linnaeus) (20) |  |  | Asia (CN, IL, TR, AE), Europe (BG, CZ, IT, MK, PL, RO, SK, UA) | Polyphagous | Grilli et al. 2017, Lim et al. 2014, Özdikmen 2013 |
| *Pinus* | *Arhopalus* sp. (53) |  |  | Asia (CN, TR), Europe (FR, IT, RO, UA, UK), North America (MX) |  |  |
| *Pinus* | *Cephalocrius* (=*Arhopalus*) *syriacus* (Reitter) (1) |  |  | Europe (NL) | Monophagouson *Pinus* spp. | Brelih et al. 2006 |
| *Pinus* | *Asemum caseyi* Linsley (1) |  |  | North America (MX) | Monophagouson *Pinus* spp. | Linsley 1957 |
| *Pinus* |  | *Buprestis dalmatina* Mannerheim (1) |  | Asia (TR) | Monophagous on *Pinus* spp. | Niehuis 1990, Tozlu and Özbek 2000 |
| *Pinus* |  | *Buprestis haemorrhoidalis* Herbst (1) |  | Europe (UA) | Polyphagous | Molino-Olmedo 1999, Sakalian 2003 |
| *Pinus* |  | *Buprestis novemmaculata* (Linnaeus) (1) |  | Europe (UA) | Oligophagous | Bellamy et al. 2013 |
| *Pinus* |  | *Buprestis* sp. (6) |  | Asia (CN, TR), Europe (PT), North America (MX) |  |  |
| *Pinus* | *Callidium violaceum* (Linnaeus) (4) |  |  | Europe (BG, CZ, HR, HU) | Polyphagous | Duffy 1953; Lim et al. 2014 |
| *Pinus* | *Cephalallus* sp. (1) |  |  | Asia (CN) |  |  |
| *Pinus* | *Cephalallus* (=*Arhopalus*) *unicolor* (Gahan) (3) |  |  | Asia (CN) | Monophagous on *Pinus* spp.? | Duffy 1968; Lim et al. 2014; Sataral et al. 2015 |
| *Pinus* |  | *Chrysobothris igniventris* Reitter (1) |  | Asia (TR) | Oligophagous | Sakalian 2003 |
| *Pinus* | *Hylotrupes bajulus* (Linnaeus) (4) |  |  | Asia (TR), Europe (AT, IT) | Polyphagous | Brelih et al. 2006, Duffy 1953 |
| *Pinus* | *Molorchus minor* (Linnaeus) (1) |  |  | Europe (IT) | Polyphagous | Brelih et al. 2006, Duffy 1953 |
| *Pinus* | *Monochamus alternatus* (Hope) (8) |  |  | Asia (CN) | Oligophagous? | Fan and Sun 2006. Duffy 1968 |
| *Pinus* | *Monochamus clamator* (LeConte) (4) |  |  | North America (MX) | Oligophagous? | Linsley and Chemsak 1984 |
| *Pinus* | *Monochamus galloprovincialis* (Olivier) (7) |  |  | Asia (TR), Europe (BG, CZ, FR, UA) | Oligophagous | Brelih et al. 2006, Duffy 1953 |
| *Pinus* | *Monochamus sartor* (Fabricius) (1) |  |  | Asia (TR) | Oligophagous | Duffy 1953 |
| *Pinus* | *Monochamus* sp. (1) |  |  | North America (MX) |  |  |
| *Pinus* |  | *Phaenops cyanea* (Fabricius) (1) |  | Europe (UA) | Oligophagous | Sakalian 2003 |
| *Pinus* | *Pogonocherus perroudi* Mulsant (1) |  |  | Asia (TR) | Monophagous on *Pinus* spp. | Brelih et al. 2006 |
| *Pinus* |  |  | *Sirex* sp. (1) | North America (MX) |  |  |
| *Pinus* | *Tetropium* sp. (1) |  |  | Europe (DE) |  |  |
| *Pinus* | *Trichoferus campestris* (Faldermann) (5) |  |  | Asia (CN), South America (BR) | Polyphagous | Grebennikov et al. 2010 |
| *Pinus* |  | Unidentified buprestids (30) |  | Asia (CN, IN, VN), Europe (UA), North America (MX) |  |  |
| *Pinus* | Unidentified cerambycids (92) |  |  | Africa (ZA), Asia (CN, RU, KR, TR, TW, VN), Europe (AT, BG, CZ, DE, ES, FR, GR, IT, MK, PL, SK, UA) |  |  |
| *Pinus* | *Xylotrechus integer* (Haldeman) (1) |  |  | North America (MX) | Polyphagous | Vlasak and Vlasakova 2002, |
| *Pinus* | *Xylotrechus sagittatus* (Germar) (3) |  |  | North America (MX) | Oligophagous | Hovore and Giesbert 1976, Linsley et al. 1961 |
| *Pinus* | *Xylotrechus* sp. (3) |  |  | Europe (RO), North America (MX) |  |  |
| *Pseudotsuga* | *Monochamus* sp. (1) |  |  | Europe (PL) |  |  |
| *Pseudotsuga* | *Tetropium* sp. (1) |  |  | Europe (DE) |  |  |
| *Pseudotsuga* | Unidentified cerambycids (2) |  |  | Europe (DE) |  |  |
|  |  |  |  |  |  |  |
| **HARDWOODS**  **(Angiosperm Trees)** |  |  |  |  |  |  |
| **Anacardiaceae** |  |  |  |  |  |  |
| *Mangifera\*\** | *Anoplophora glabripennis* (Motschulsky) (1) |  |  | Asia (ID) | Polyphagous | Van der Gaag and Loomis 2014 |
| *Mangifera* |  | *Belionota prasina* (Thunberg) (4) |  | Asia (ID, IN) | Polyphagous | Bellamy et al. 2013 |
| *Mangifera* |  | *Belionota* sp. (2) |  | Asia (IN) |  |  |
| *Mangifera* | *Coptops* sp. (1) |  |  | Asia (CN) |  |  |
| *Mangifera* |  | Unidentified buprestid (1) |  | Asia (HK) |  |  |
| *Mangifera* | Unidentified cerambycid (1) |  |  | Asia (VN) |  |  |
| *Pistachia* | Unidentified cerambycid (1) |  |  | Asia (CN) |  |  |
| **Araliaceae** |  |  |  |  |  |  |
| *Schefflera* | *Acalolepta* sp. (1) |  |  | Asia (CN) |  |  |
| **Bignoniaceae** |  |  |  |  |  |  |
| *Catalpa* | Unidentified cerambycid (1) |  |  | Asia (CN) |  |  |
| *Tabebuia* | *Xylotrechus smei* (Castelnau & Gory)b(1) |  |  | Asia (IN) | Polyphagous | Duffy 1968 |
| **Betulaceae** |  |  |  |  |  |  |
| *Alnus* | Unidentified buprestids (2) |  |  | Europe (HU, UA) |  |  |
| *Betula* | *Trichoferus campestris* (Faldermann) (1) |  |  | Europe (RO) | Polyphagous | Grebennikov et al. 2010 |
| **Dipterocarpaceae** |  |  |  |  |  |  |
| *Shorea* | Unidentified cerambycid (1) |  |  | Asia (TW) |  |  |
| **Ebenaceae** |  |  |  |  |  |  |
| *Diospyros* | *Xylotrechus magnicollis* (Fairmaire) (2) |  |  | Asia (CN) | Polyphagous | Kimoto and Duthie-Holt 2004 |
| *Diospyros* | *Xylotrechus rufilius* Bates (1) |  |  | Asia (CN) |  |  |
| **Euphorbiaceae** |  |  |  |  |  |  |
| *Aleurites* | Unidentified cerambycids (2) |  |  | Asia (CN) |  |  |
| *Hevea* | *Chlorophorus* sp. (1) |  |  | Asia (IN) |  |  |
| *Hevea* | *Xylotrechus rufilius* Bates (2) |  |  | Asia (CN) | Polyphagous | Kimoto and Duthie-Holt 2004 |
| *Hevea* | Unidentified cerambycid (1) |  |  | Asia (CN) |  |  |
| Melanolepis? |  | *Belionota prasina* (Thunberg) (1) |  | Asia (CN) | Polyphagous | Bellamy et al. 2013 |
| Melanolepis? | *Thranius* sp. (1) |  |  | Asia (CN) |  |  |
| **Fabaceae** |  |  |  |  |  |  |
| *Acacia* | *Derolus* sp. (1) |  |  | Asia (IN) |  |  |
| *Acacia* | *Xylotrechus sme*i (Castelnau & Gory) (2) |  |  | Asia (IN) | Polyphagous | Duffy 1968 |
| *Acacia* | Unidentified cerambycids (3) |  |  | Asia (IN), Central & South America (DO) |  |  |
| *Cassia* | Unidentified cerambycid (1) |  |  | Asia (IN) |  |  |
| *Enterolobium* | *Chlorida festiva* (Linnaeus) (1) |  |  | Central & South America (PE) | Polyphagous | Duffy 1960, Monné & Chaboo 2015 |
| *Lonchocarpus* | *Xylotrechus magnicollis* Fairmaire (1) |  |  | Asia (CN) | Polyphagous | Duffy 1968 |
| *Parkia* | *Xystrocera globosa* (Olivier) (1) |  |  | Asia (IN) | Polyphagous | Duffy 1968, Karyianna et al. 2017 |
| **Fagaceae** |  |  |  |  |  |  |
| *Castanopsis* | Unidentified cerambycids (2) |  |  | Asia (CN) |  |  |
| *Fagus* | *Trichoferus* sp. (1) |  |  | Europe (RO) |  |  |
| *Fagus* | Unidentified cerambycid (1) |  |  | Europe (RO) |  |  |
| *Quercus* | *Chlorophorus* sp. (1) |  |  | Asia (CN) |  |  |
| *Quercus\** | *Xylotrechus* *buqueti* (Castelnau & Gory) (1) |  |  | Asia (CN) | Polyphagous | Duffy 1968 |
| *Quercus* | Unidentified cerambycid (1) |  |  | Asia (CN) |  |  |
| **Meliaceae** |  |  |  |  |  |  |
| *Melia* | Unidentified cerambycid (1) |  |  | Asia (CN) |  |  |
| **Moraceae** |  |  |  |  |  |  |
| *Artocarpus* | Unidentified cerambycid (1) |  |  | Asia (VN) |  |  |
| *Ficus* | Unidentified cerambycid (1) |  |  | Asia (CN) |  |  |
| **Myrtaceae** |  |  |  |  |  |  |
| *Eucalyptus* | *Phoracantha recurva Newman (1)* |  |  | Central & South America (BR) | Oligophagous? | Kliejunas et al. 2001 |
| *Eucalyptus* | *Pothyne* sp. (1) |  |  | Asia (VN) |  |  |
| *Eucalyptus* | Unidentified cerambycid (1) |  |  | Asia (VN) |  |  |
| *Syzygium* | Unidentified cerambycid (1) |  |  | Asia (IN) |  |  |
| **Rutaceae** |  |  |  |  |  |  |
| *Phellodendron* | *Acalolepta* sp. nr. *luxuriosa* (1) |  |  | Asia (CN) |  |  |
| **Salicaceae** |  |  |  |  |  |  |
| *Populus* |  | *Agrilus sp.* (1) |  | Europe (RO) |  |  |
| *Populus* | *Anoplophora glabripennis* (Motschulsky) (6) |  |  | Asia (CN) | Polyphagous | Van der Gaag and Loomis 2014 |
| *Populus* | *Arhopalus rusticus* (Linnaeus) (1) |  |  | Europe (AT) | Polyphagous | Duffy 1968, Lim et al. 2014 |
| *Populus* | *Aromia moschata* (Linnaeus) (1) |  |  | Europe (RO) | Oligophagous? | Duffy 1953, Meleshko 2003 |
| *Populus* | *Cephalallus* (=*Arhopalus*) *unicolor* (Gahan) (1) |  |  | Europe (RO) |  |  |
| *Populus* | *Chlorophorus diadema* (Motschulsky) (1) |  |  | Asia (CN) | Polyphagous | Cherepanov 1988 |
| *Populus* | *Megopis* (=*Aegosoma*) *sinica*  (White) (1) |  |  | Asia (CN) | Polyphagous | Duffy 1968, Kojima 1931, Lim et al. 2014 |
| *Populus* | *Stromatium longicorne* (Newman) (2) |  |  | Asia (CN) | Polyphagous | Duffy 1968 |
| *Populus* | *Trichoferus campestris* (Faldermann) (17) |  |  | Asia (CN) | Polyphagous | Grebennikov et al. 2010 |
| *Populus* | *Trichoferus* sp. (2) |  |  | Asia (CN) |  |  |
| *Populus* | *Xylotrechus rufilius* Bates (1) |  |  | Asia (CN) | Polyphagous | Duffy 1968 |
| *Populus* | *Xylotrechus rusticus* (Linnaeus) (3) |  |  | Europe (BE, DE) | Polyphagous | Brelih et al. 2006; Han and Lyu 2010 |
| *Populus* | Unidentified cerambycids (14) |  |  | Asia (CN), Europe (DE, IT) |  |  |
| **Sapotaceae** |  |  |  |  |  |  |
| *Pouteria* | *Ceresium flavipes* (Fabricius) (1) |  |  | Asia (CN) | Polyphagous | Duffy 1963 |
| **Symplocaceae** |  |  |  |  |  |  |
| *Symplocos* | Unidentified cerambycid (1) |  |  | Asia (CN) |  |  |
| **Ulmaceae** |  |  |  |  |  |  |
| *Holoptelea* | *Xylotrechus smei* (1) |  |  | Asia (IN) | Polyphagous | Duffy 1968 |
| *Ulmus* | Unidentified cerambycid (1) |  |  | Asia (CN) |  |  |

\*First report from this host genus.

\*\*If confirmed, the record is a first report from this genus and family. See discussion in the text.

Note: Russia is considered as fully within Asia.

AE - United Arab Emirates, AR - Argentina, AT - Austria, BA – Bosnia and Herzegovina, BE - Belgium, BG - Bulgaria, BR - Brazil, BY - Belarus, CN - China, CR - Costa Rica, CZ - Czech Republic, DE - Germany, DO - Dominican Republic, ES - Spain, FR - France, GR - Greece, HU - Hungary, ID - Indonesia, IL – Israel, IN - India, IT - Italy, JM - Jamaica, KR - South Korea, MK – North Macedonia, MX - Mexico, NL - Netherlands, PL - Poland, PT - Portugal, RO - Romania, RU - Russia, SI – Slovenia, SK - Slovakia, TR - Turkey, TW - Taiwan, UA - Ukraine, UK - United Kingdom, VN - Viet Nam, ZA - South Africa.

Supplementary Table S2. Species of wood borers intercepted alive in wood packaging materials (WPM) arriving at selected US ports during 2012 – 2018, origin of shipments with infested WPM, presence of the insects in the US, and pest-potential group based on reported information on larval diet breadth, condition of tree species utilized as developmental hosts, and pest status.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Pest Group Based on Damage Potential1** | **Shipment Origin** | **Wood Borer** | **Diet Breadth** | **Developmental-Host Condition2** | **Presence in US** | **Pest status** | **Sources** |
| SOFTWOOD BORERS |  |  |  |  |  |  |  |
| Group B | Italy | *Acanthocinus aedilis* | Oligophagous | SH, DH | Absent | Pest in Europe and Asia (Turkey); may vector pinewood nematode and plant-pathogenic fungi that cause blue-stain disease in conifers | Jankowiak and Rossa 2007, Jurc et al. 2012, Tozlu 2001, Wermelinger et al. 2008 |
| Group B | Slovenia, South Korea | *Acanthocinus griseus* | Polyphagous | SH, DH | Absent | Not considered a pest in its native region | Cocoş et al. 2017, Lim et al. 2014, Martikainen 2002 |
| Native | Ukraine | *Acmaeops proteus* | Oligophagous | SH, DH | Native | Pest information not found | Gardiner 1954 |
| Group B | Romania, Turkey | *Anastrangalia dubia* | Oligophagous | SH, DH | Absent | Pest information not found |  |
| Native | Spain | *Arhopalus ferus* | Oligophagous | LH, SH | Native | Pest (timber) in Australia, New Zealand | Duffy 1968, Wang and Leschen 2003 |
| Native | Mexico, Turkey | *Arhopalus montanus* | Monophagous\*\*\* | SH, DH, DW | Native | Pest information not found; mostly in roots of dead *Pinus* spp. | Furniss and Carolin 1977, Linsley et al. 1961 |
| Native | Mexico | *Arhopalus productus* | Oligophagous | SH, DH | Native | Timber and structural pest in North America | Eaton and Lyon 1955 |
| Group B | Argentina, China, Europe-wide, Israel, S. Africa, Turkey, United Arab Emirates | *Arhopalus rusticus* | Polyphagous | SH, DH, DW (rarely) | Non-native, present | Pest in Europe, possible vector of pinewood nematodes, *Bursaphelenchus* spp. | Duffy 1968, Evans et al. 2004, Kolk and Starzyk 1996, Lim et al. 2014, Wang and Leschen 2003, Wang et al. 2014 |
| Native | Mexico | *Asemum caseyi* | Monophagous | LH, SH, DH | Native | Pest in North America | Skiles 1978 |
| Group B? | Turkey | *Buprestis dalmatina* | Oligophagous? | DH | Absent | Pest information not found | Lorubio et al. 2018, Tozlu and Özbek 2000 |
| Group B? | Ukraine | *Buprestis haemorrhoidalis* | Polyphagous | DH | Absent | Pest information not found | Molino-Olmedo 1999; Sakalian 2003 |
| Group B | Ukraine | *Buprestis novemmaculata* | Oligophagous | SH? DH | Absent | Structural pest in Europe; pest in South America | Bellamy et al. 2013, Dominik 1984, Klein Koch and Waterhouse 2000, Luciano 2009 |
| Group A | Slovakia | *Callidium coriaceum* | Oligophagous | LH, SH | Absent | Pest in Europe | Lännenpää et al. 2008, Gutowski 1983, Juutinen 1960, Pfeffer 1932 |
| Group B | Germany, eastern Europe, Mexico, Russia, Turkey | *Callidium violaceum* | Polyphagous | DH, DW | Non-native, present | Pest in Asia, Europe, North America | Duffy 1953, Eyre and Haack 2017, Foit 2010 |
| Group ? | China | *Cephalallus* (=*Arhopalus*) *unicolor* | Monophagous (*Pinus* spp.) | Information not found | Absent | Pest information not found | Duffy 1968, Lim et al. 2014, Sataral et al. 2015 |
| Group B | Netherlands | *Cephalocrius* (=*Arhopalus*) *syriacus* | Monophagous\*\*\* | SH, DH | Absent | Pest (timber) in Australia, New Zealand | Stanaway et al. 2001, Wang and Leschen 2003, Webb and Eldridge 1997, |
| Group B | Turkey | *Chrysobothris igniventris* | Oligophagous | SH, DH | Absent | Pest information not found | Foit 2010, Sakalian 2003 |
| Group ? | Belarus, Germany, Romania | *Eurythyrea austriaca* | Oligophagous | Information not found | Absent | Pest information not found | Bussler et al. 2005, Sakalian 2003 |
| Group B | Israel, France, Italy | *Hylotrupes bajulus* | Polyphagous | DW | Non-native, present | Pest (timber) worldwide | Duffy 1953, Eyre and Haack 2017 |
| Group B | Russia, Romania, Slovenia | *Molorchus minor* | Polyphagous | SH, DH | Absent | Pest in Europe | Brelih et al. 2006, Duffy 1953, Kolk and Starzyk 1996, Evans et al. 2004, Martins et al. 2015 |
| Group B? | China | *Monochamus alternatus\** | Oligophagous | SH | Absent | Pest in Asia; vector of pine wood nematode | Hanks 1999, Hu et al. 2013, Ji et al. 2011 |
| Native | Mexico | *Monochamus clamator* | Oligophagous | SH, DH, DW | Native | Not considered a pest in its native region | Costello et al. 2011 |
| Group A | Bulgaria, Czech Republic, France, Spain, Ukraine | *Monochamus galloprovincialis\** | Oligophagous | LH, SH, DH | Absent | Pest in Europe, vector of certain plant pathogenic fungi and pine-wood nematode | Evan et al. 2004, Jankowiak et al. 2007, Naves et al. 2008 |
| Group A | Hungary, Italy | *Monochamus sartor\** | Oligophagous | LH, SH, DH | Absent | Pest in Europe, vector of pine-wood nematode | Evans et al. 2004, Kimoto and Duthie-Holt 2004, Putz et al. 2016 |
| Group A | Italy | *Monochamus sutor\** | Oligophagous | LH, SH, DH | Absent | Pest in Europe, vector of pine-wood nematode | Evans et al. 2004, Putz et al. 2016 |
| Group A | Italy, Russia | *Monochamus urussovii\** | Oligophagous | LH, SH, DH | Absent | Pest in Europe, vector of plant pathogenic fungi and pine-wood nematode | Evans et al. 2004, Kimoto and Duthie-Holt 2004 |
| Group A | Turkey, Ukraine | *Phaenops cyanea* | Oligophagous | LH, SH, DH | Absent | Pest in Europe | Evans et al. 2004 |
| Group B | Turkey | *Pogonocherus perroudi* | Monophagous\*\*\* | DH | Absent | Pest in Asia (Turkey)? | Brelih et al. 2006, Doychev et al. 2017 |
| Group B | Belgium, Czech Republic, Germany, Lebanon, Slovenia | *Sirex juvencus\*\** | Oligophagous | SH, DH | Absent | Pest in Europe; the fungal symbiont *Amylostereum* can damage or kill conifers | Kolk and Starzyk 1996, Schiff et al. 2006, Spradbery and Kirk 1978, Talbot 1977, Goulet 2011 |
| Group A | Austria, Czech Republic, Germany | *Tetropium castaneum*\*\* | Oligophagous | LH, SH, DH | Non-native, present | Pest in Europe | Evans et al. 2004, Jankowiak and Kolařík 2010, Kimoto and Duthie-Holt 2004, LaBonte et al. 2005, Stanaway et al. 2001 |
| Group B | Poland | *Tetropium gabrieli* | Oligophagous | SH | Absent | Pest in Europe | Crawshay 1907, Ericson 2010, Evans et al. 2004 |
| Group A | Brazil, China, Romania, S. Korea | *Trichoferus campestris* | Polyphagous | LH, SH, DH, DW | Non-native, present | Pest in US. Infests dead trunks of fruit trees (Rosaceae) in China and in living fruit trees in the US | Bullas-Appleton et al. 2013, Baode Wang (US data, personal communication), Ray et al. 2019, Yin and Guo 1999, Zhang et al. 2017 |
| Group B | Czech Republic | *Urocerus gigas gigas\*\** | Oligophagous | SH, DH | Absent | Pest in Europe, South America; the fungal symbiont *Amylostereum* can damage or kill conifers | Kline Koch and Waterhouse 2000, Kolk and Starzyk 1996, Schiff et al. 2006, Spradbery and Kirk 1978, Talbot 1977 |
| Native | Mexico | *Xylotrechus integer* | Polyphagous | SH, DH? | Native | Pest information not found. |  |
| Native | Mexico | *Xylotrechus sagittatus* | Oligophagous | SH, DH | Native | Pest information not found | Campbell et al. 2008, Ulyshen and Hanula 2009 |
| **HARDWOOD BORERS** |  |  |  |  |  |  |  |
| Group A | China | *Anoplophora glabripennis* | Polyphagous | LH | Non-native, present | Pest in China, Europe, and North America | Haack et al. 2010, Hanks 1999, Ji et al. 2011, Kimoto and Duthie-Holt 2004 |
| Group B | Austria | *Arhopalus rusticus* | Polyphagous | SH, DH, rarely DW | Absent | Pest in Europe, possible vector of pine wood nematode, *Bursaphelenchus* spp. | Duffy 1968, Evans et al. 2004, Kolk and Starzyk 1996, Lim et al. 2014, Wang and Leschen 2003, Wang et al. 2014 |
| Group A | Romania | *Aromia moschata* | Polyphagous | LH | Absent | Pest in Europe | Alford 2012, Bétard and Gerbaud 2013, Duffy 1953, Meleshko 2003 |
| Group B | China, India, Indonesia | *Belionota prasina* | Polyphagous | SH, DH | Absent | Pest in Asia | Bellamy et al. 2013, Bhasin and Roonwal 1954, Singh and Kaur 2014 |
| Group A | China | *Ceresium flavipes* | Polyphagous | LH, SH, DH | Absent | Pest in Asia | Duffy 1963, Khan and Maiti 1983 |
| Group A | Peru | *Chlorida festiva* | Polyphagous | LH, SH | Native | Pest in South America (Brazil) and Central America | Duffy 1960, Silva et al. 2016 |
| Group A | China | *Chlorophorus diadema* | Polyphagous | LH, SH, DW | Absent | Pest in Asia on grapevine, timber, and weakened parts of Rosaceae fruit trees | Cherepenov 1988, Shen and Li 1983, Yan et al. 2015, Zhang et al. 2015, Zhang et al. 2017 |
| Group A | China | *Megopis* (=*Aegosoma*) *sinica* | Polyphagous | LH (hardwoods), DH, DW | Absent | Pest in Asia. In live hardwoods; decaying fruit-wood; dead softwoods | Duffy 1968, Kojima 1931, Zhang et al. 2017 |
| Group A | Brazil | *Phoracantha recurva* | Oligophagous? | LH (in introduced region), SH, DH (native region) | Non-native, present | Pest in North & South America, Africa, Asia, Europe, Australia | Hanks et al. 1997, Kliejunas et al. 2001, Paine et al. 2000, Paine et al. 2011 |
| Group B | China | *Stromatium longicorne* | Polyphagous | DW | Absent | Pest (furniture, timber) in Asia, Europe | Cocquempot et al. 2014, Duffy 1968 |
| Group A | China | *Trichoferus campestris* | Polyphagous | LH, SH, DH, DW | Non-native, present | Pest. Infests dead trunks of Rosaceae fruit trees in China, living fruit trees in US. | Bullas-Appleton et al. 2013, Yin and Guo 1999, Baode Wang (USDA, US data, personal communication), Zhang et al. 2017 |
| Group B | China | *Xylotrechus buqueti* | Polyphagous | DW | Absent | Pest (timber) in Asia | Bhasin and Roonwal 1954, Duffy 1968, Khan and Maiti 1983, Nair 2007 |
| Group B | China | *Xylotrechus magnicollis* | Polyphagous | DW | Absent | Timber pest; found in imported furniture | Duffy 1968, Froud et al. 2008 |
| Group B | China | *Xylotrechus rufilius* | Polyphagous | DH | Absent | Potential threat to North American forests if present | Cherepenov 1988, Duffy 1968, Han and Lyu 2010, Kimoto and Duthie-Holt 2004 |
| Group B | Europe | *Xylotrechus rusticus* | Polyphagous | SH, DH | Absent | Pest in Asia | Brelih et al. 2006, Cherepenov 1988, Han and Lyu 2010, Ji et al. 2011, Jing et al. 2017, Sahlin and Ranius 2009 |
| Group B | India | *Xylotrechus smei* | Polyphagous | DH | Absent | Pest in Asia | Bhasin and Roonwal 1954, Duffy 1968 |
| Group A | India | *Xystrocera globosa* | Polyphagous | LH, DH | Absent | Pest in Asia | Duffy 1968, Friedman et al. 2008, Mathew 1982 |

\*Adults can vector pathogenic *Bursaphelenchus* spp. nematodes to living trees.

\*\*Adults vector decay fungi *Amylostereum* spp*.* (siricid vectors) or ophiostomatoid fungi (*Tetropium* vectors) to stressed or dying trees.

\*\*\*Reported monophagous on *Pinus* species but specimens were reared in both *Pinus* and *Picea* wood packaging.

1Group A, highest damage potential, pest of living trees or timber; Group B, lower damage potential, lumber and structural pest, feeds on stressed and dead hosts or on dry wood; Native, low damage potential where native, but potentially damaging if established outside its native range in the US.

2LH: living hosts, ranging from healthy to moderately weakened or stressed but with recovery possible; SH: severely stressed, dying hosts with no chance of recovery; DH: recently dead hosts; DW: dry wood, including seasoned and decaying wood.