Supplementary Material

Appendix S1


Information sources for Figure 1


Information sources & data for Figure 2

USA


Hawaii


New Zealand

Port Philip Bay (PPB), Australia

Ukraine

South Africa

Israel

Germany

Norway

<table>
<thead>
<tr>
<th>Location</th>
<th>Number of invert &amp; algae NIS</th>
<th>Number NIS associated with shipping introduction</th>
<th>% associated with shipping</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>450</td>
<td>351</td>
<td>78</td>
</tr>
<tr>
<td>Hawaii</td>
<td>263</td>
<td>200</td>
<td>76</td>
</tr>
<tr>
<td>New Zealand</td>
<td>124</td>
<td>122</td>
<td>98</td>
</tr>
<tr>
<td>PPB, Australia</td>
<td>95</td>
<td>95</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Proportion of World Fleet</td>
<td>US Foreign Arrivals</td>
<td>Average WSA</td>
</tr>
<tr>
<td>------------------</td>
<td>---------------------------</td>
<td>---------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Auto-carrier</td>
<td>2913</td>
<td>4091</td>
<td>6239</td>
</tr>
<tr>
<td>Bulker</td>
<td>11560</td>
<td>6619</td>
<td>8965</td>
</tr>
<tr>
<td>Containership</td>
<td>5057</td>
<td>9065</td>
<td>9372</td>
</tr>
<tr>
<td>General Cargo</td>
<td>14375</td>
<td>3431</td>
<td>3273</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>14108</td>
<td>2194</td>
<td>2128</td>
</tr>
<tr>
<td>Passenger</td>
<td>7227</td>
<td>4521</td>
<td>2980</td>
</tr>
<tr>
<td>Tanker</td>
<td>16296</td>
<td>9084</td>
<td>8930</td>
</tr>
</tbody>
</table>

**Sources**

**World Fleet data:** from IHS Fairplay (London, UK)

**U.S. foreign arrivals:** from the National Ballast Information Clearinghouse (Edgewater, Maryland, USA) data for 2014, sourced in February 2017; https://invasions.si.edu/nbic/

**Average WSA (Wetted Surface Area):** from a simple average of two data sets reporting WSA by ship type. These sources used different but comparable underlying fleet data and approaches to calculate WSA;


**Niche WSA:** from Moser et al. (2017) which reported niche surface areas as a simple percentage of overall WSA per ship type;

**Typical Port Duration:** from a simple average (per ship type) of three data sources;
California State Lands Commission (Sacramento, California, USA) 2014 data from the state’s Hull Husbandry Reporting Form (HHRF); accessed January 2017. (n=1756 ships).

**Typical Speed:** from a simple average of two data sources per ship type;
California State Lands Commission (Sacramento, California, USA) 2014 data from the state’s Hull Husbandry Reporting Form (HHRF); accessed January 2017. (n=1756 ships).

**% of US arrivals discharging BW:** from the National Ballast Information Clearinghouse (Edgewater, Maryland, USA) data for 2014, sourced in February 2017;
https://invasions.si.edu/nbic/

**Average BW discharged:** from the National Ballast Information Clearinghouse (Edgewater, Maryland, USA) data for 2014, sourced in February 2017; https://invasions.si.edu/nbic/