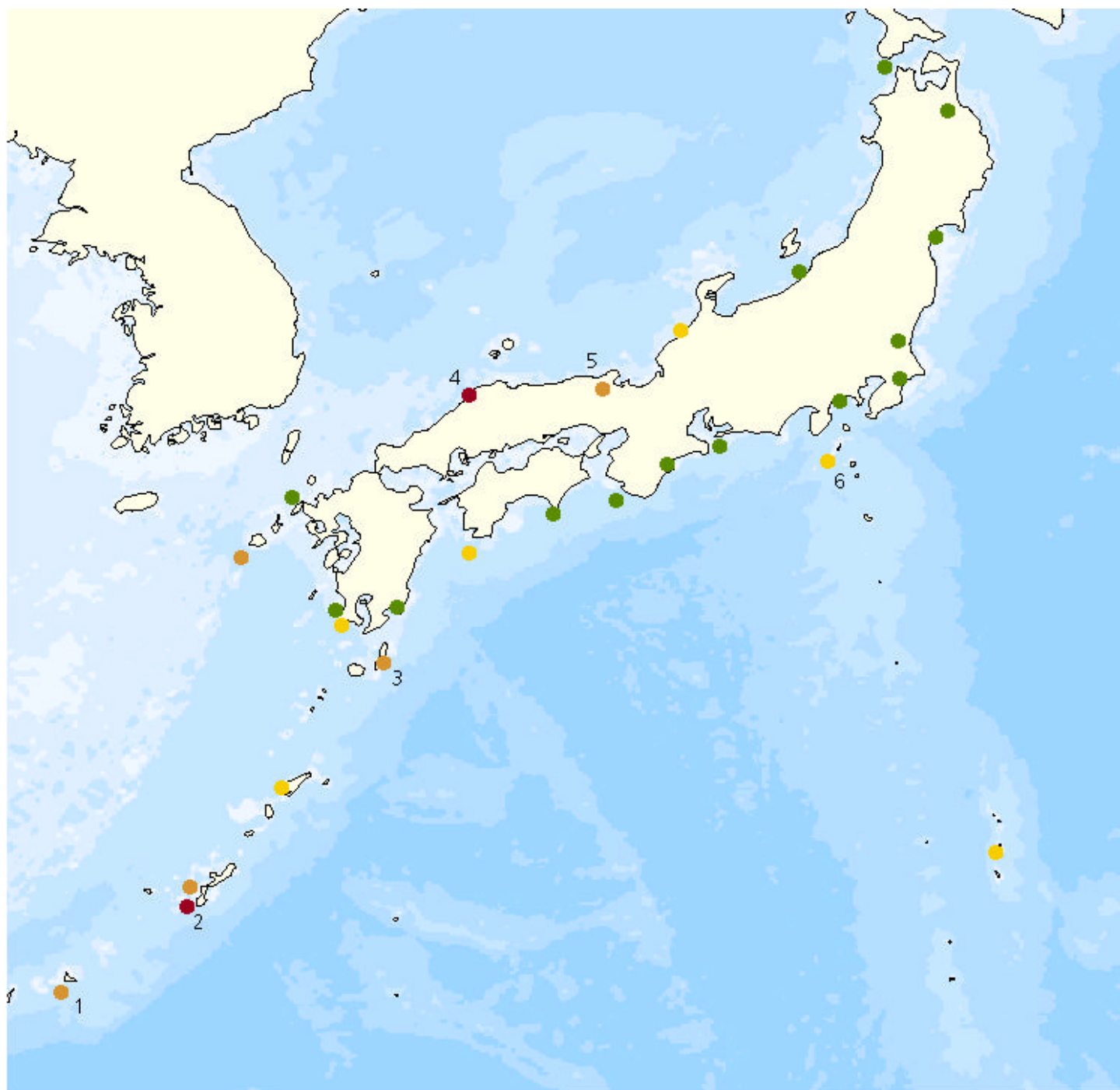


## Beach Tar Observations in Japan, 1975 - 1995



Mean total weight of tar balls for 1993-1995

- Mean total weight  $\geq$  100 g
- 10g  $\leq$  Mean total weight < 100g
- Mean total weight < 10g
- No tar balls observed

**Map Projection:** Geographic

**Citation:** World Resources Institute - PAGE, 2000

**Notes:**

**Analytical Overview:**

Intergovernmental Oceanographic Commission's Marine Pollution Monitoring Programme (MARPOLMON) was implemented in 1980s and has compiled data on oil residue in the ocean collected by ships and coastal monitoring stations. The data presented here is a subset of the data collected under MARPOLMON for a more recent period. The major limitations of this data set are the following: only few of the reported observations show the magnitude of contamination (size and concentration); the trend in frequency may be the result of increased shipping traffic and reporting; and data are not complete for all countries and years.

**Map Description:**

Petroleum residues can contaminate marine and coastal waters through various routes: accidental oil spills from tankers, pipelines, and exploration sites; regular shipping and exploration operations, such as exchange of ballast water; runoff from land; and municipal and industrial wastes. Large-scale oil spills from tankers often make the headlines; yet nonpoint sources, such as runoff and routine maintenance of oil infrastructure are estimated to account for more than 70 percent of the total annual oil discharge into the ocean. Oil residue stranded on the beach or floating in the open ocean is a direct hindrance to tourism and biodiversity. This map reflects recent beach tar ball observations and trends for several sites in Japan. Some of the sites are located in major coastal tourism destinations. The general trend seems to be a decline, although the incidence of accidental spills skewed the statistics in some sites.

**Source:**

1. Japanese Oceanographic Data Center (JODC). 1999, Intergovernmental Oceanographic Commission (IOC) Marine Pollution Monitoring Programme (MARPOLMON) Data. Tokyo, Japan: JODC.