

# Inventory Reporting Analysis & Mapping (IRAM)



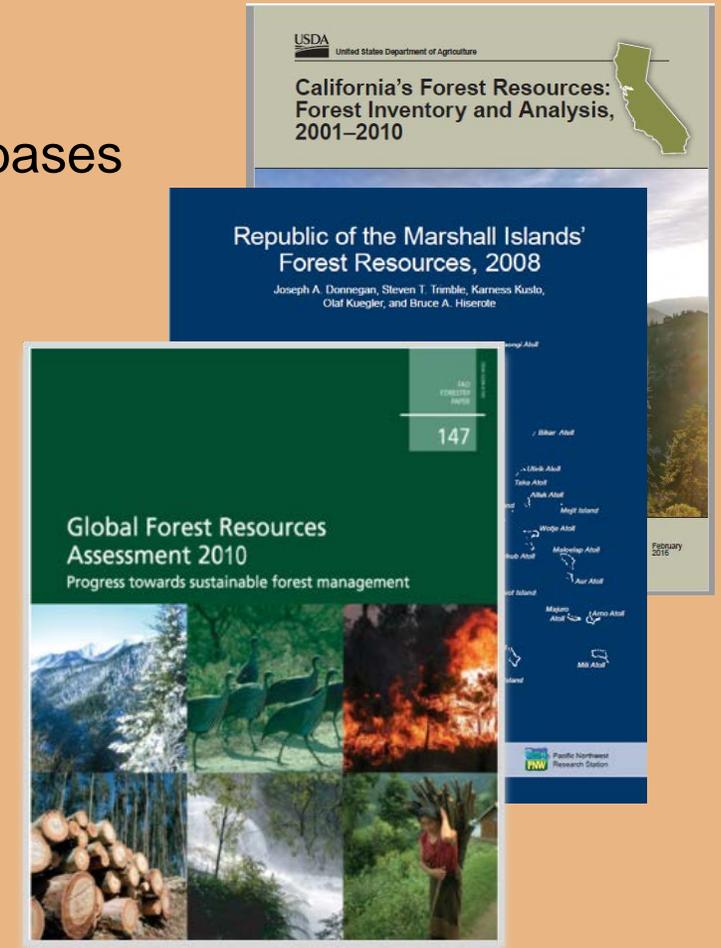
# IRAM Team -

- **Portland Forest Sciences Lab –**
  - Sharon Stanton – Team Leader
  - Glenn Christensen – Forester/Acting Team Leader
  - Olaf Kuegler – Statistician
  - John Chase - Geographer
  - Michelle Lazaro – Natural Resources Specialist
  - Marin Palmer – Forester
- **Anchorage Forest Sciences Lab –**
  - Tom Thompson – GIS Specialist
  - Sean Cahoon - Biologist
- **Other Team Members –**
  - Jane Reid - IT Specialist (retired)
  - Leslie Brodie – Forester (Olympia PNW Lab)



# IRAM Primary Deliverables -

- Annual FIA inventory data - loaded to public websites/databases
- State Reports –
  - Oregon/Washington – In press
  - Coastal Alaska – In preparation
  - California – In preparation
  - Hawaii – First inventory cycle completed
  - Pacific Islands – In press/review/preparation
- TPO – Timber Products Output
  - Timber harvest and forest products industry reports
- And many others...



# Client Outreach -

- Story maps
- Databases – PNW-FIADB
- Client meetings and data workshops

# Client Data Requests -

- Internal – FIA, other FS
- External – Public, cooperators, partners



# Story Maps: Forests of Coastal Alaska

 USDA

## Forests of Coastal Alaska

Welcome to our interactive overview of forest information from Coastal Alaska. This tool summarizes forest resource data gathered from annual inventories collected by the Forest Inventory and Analysis (FIA) program at the Pacific Northwest Research Station of the USDA Forest Service.

Right: Prince of Wales Island. Photo: S. Ellison

Estimates provided here are based on data collected annually between 2004 and 2013 from 2,227 plots located throughout the Coastal inventory unit. Typically, annual FIA data are summarized for each state. However, due to the complexity of implementing an annual inventory cycle throughout the vast and diverse forests in Alaska, the statewide FIA program has been separated into two broad regions (Interior and Coastal) and subdivided into smaller inventory units (see map below). The Coastal inventory unit stretches ~1200 miles from Kodiak Island to the Canadian border in southeast Alaska. Importantly, data summarized here do not include plots from National Parks and wilderness lands where access was limited to just one season.



# Story Maps: Forests of Coastal Alaska

| Coastal Alaska Forest Statistics   |                      |                |
|--|----------------------|----------------|
|  | 2004 - 2013 estimate | Sampling error |
| <b>Forest land</b>   |                      |                |
| Area ( <i>thousand acres</i> )   | 15,310               | 235            |
| Number of live trees $\geq$ 1 inch diameter ( <i>million trees</i> )     | 8,430                | 273            |
| Net volume of live trees ( <i>million cubic feet</i> )                   | 56,903               | 1,623          |
| Average net volume per acre of live trees ( <i>thousand acres</i> )      | 3,716                | 107            |
| Aboveground biomass of live trees ( <i>thousand tons</i> )               | 1,368,561            | 37,434         |
| Biomass of standing dead trees ( <i>thousand tons</i> )                  | 217,721              | 8,226          |
| Aboveground carbon ( <i>thousand megagrams</i> )                         | 620,779              | 16,980         |
|  |                      |                |
| <b>Timberland</b>  |                      |                |
| Area ( <i>thousand acres</i> )   | 6,121                | 159            |
| Net volume live trees ( <i>million cubic feet</i> )                      | 30,124               | 1,124          |
| Average net volume per acre of live trees ( <i>cubic feet per acre</i> ) | 1,960                | 77             |
| Aboveground biomass live trees ( <i>thousand tons</i> )                  | 708,919              | 25,890         |
| Aboveground carbon ( <i>thousand megagrams</i> )                         | 321,565              | 11,743         |



# Story Maps: Forests of Coastal Alaska

## Forests of Coastal Alaska

### Forest Structure and Composition

The forests of Coastal Alaska are spread across six different ecological section - broadly defined areas similar in ecology, hydrology, climate and geology<sup>1</sup>. Most of the inventory unit is classified as Coastal Rainforest, with the exception of the Cook Inlet Basin which is classified under the Alaska Range Transition Province and represents the transition zone to the state's vast interior forests.

Use the interactive map to explore how forest composition differs across the six ecoregions within the inventory unit.

Across the entire inventory unit, western hemlock and mountain hemlock forests dominate the region, while Alaska yellow-cedar and Sitka spruce are also abundant. Western hemlock forests are some of the most productive in the world and have been a major source of forest products throughout western North America.

| Forest type         | Area (thousand acres) |
|---------------------|-----------------------|
| Alaska yellow-cedar | ~2500                 |
| Black spruce        | ~500                  |
| Lodgepole pine      | ~500                  |
| Mountain hemlock    | ~3200                 |
| Sitka spruce        | ~2000                 |
| Western hemlock     | ~4000                 |
| Western redcedar    | ~1000                 |
| White spruce        | ~500                  |
| Aspen               | ~200                  |
| Cottonwood          | ~500                  |
| Paper birch         | ~800                  |
| Red alder           | ~100                  |

Area of forest types in the Coastal Alaska inventory unit. Error bars represent  $\pm 1$  standard error of the mean.

Province - Mountains

DIVISION Marine

LAND ACRES 23,013,681.69

#### Forest Area - Chugach-St. Elias Mountains

| Forest type      | Area (thousand acres) | Percentage |
|------------------|-----------------------|------------|
| Paper birch      | 106                   | 17%        |
| White spruce     | 9                     | 1%         |
| Sitka spruce     | 50                    | 8%         |
| Aspen            | 10                    | 3%         |
| Black spruce     | 16                    | 4%         |
| Western hemlock  | 4                     | 1%         |
| Mountain hemlock | 216                   | 34%        |
| Cottonwood       | 112                   | 16%        |

OVERVIEW MAP

Esri, HERE, Garmin, FAO, NOAA, USGS, EPA



# Other Projects

- CAL FIRE – California Forest Carbon Report
- Interior Alaska
- FIA Protocol - field and data compilation support
- FS International Programs

