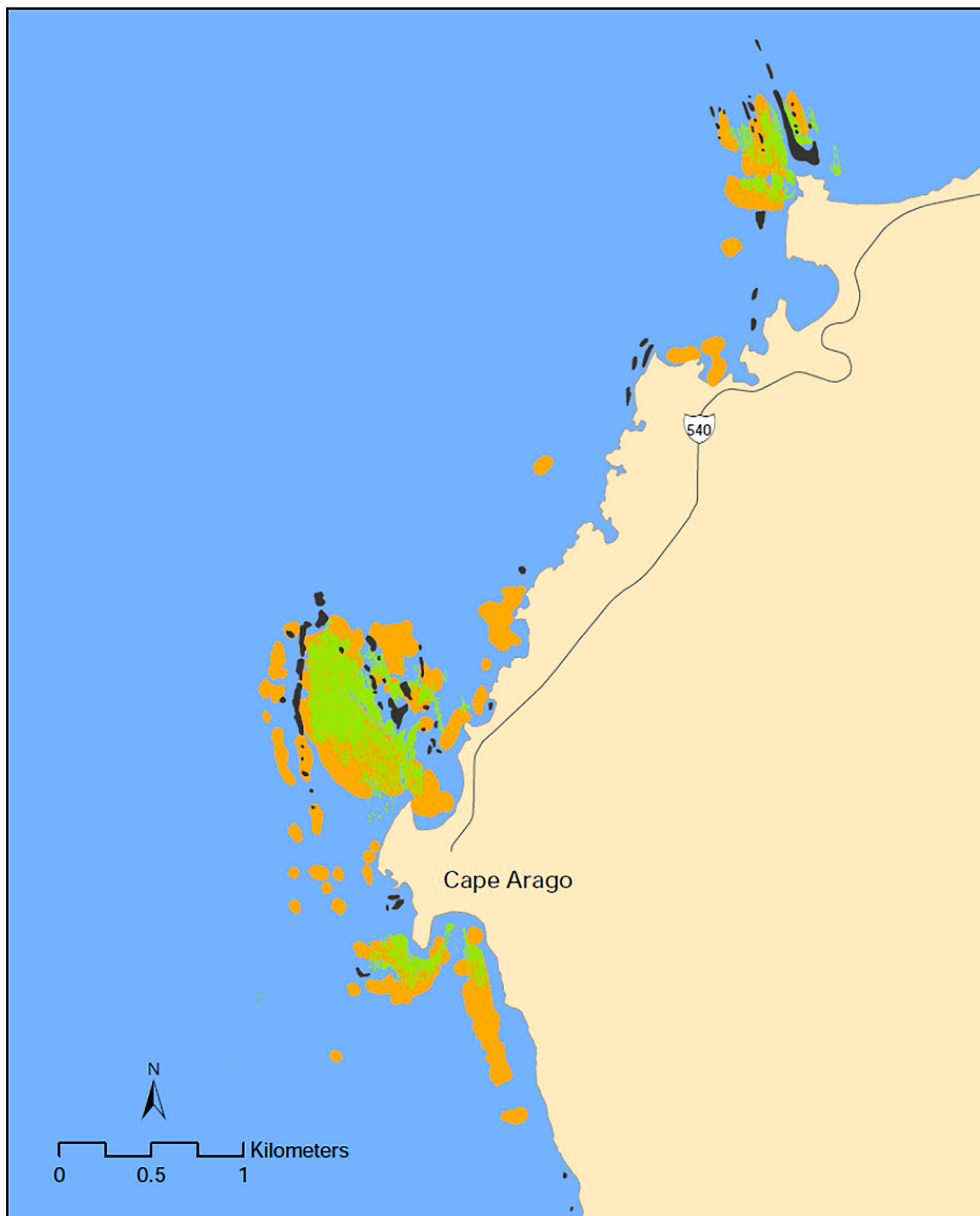


## KELP CANOPY EXTENT

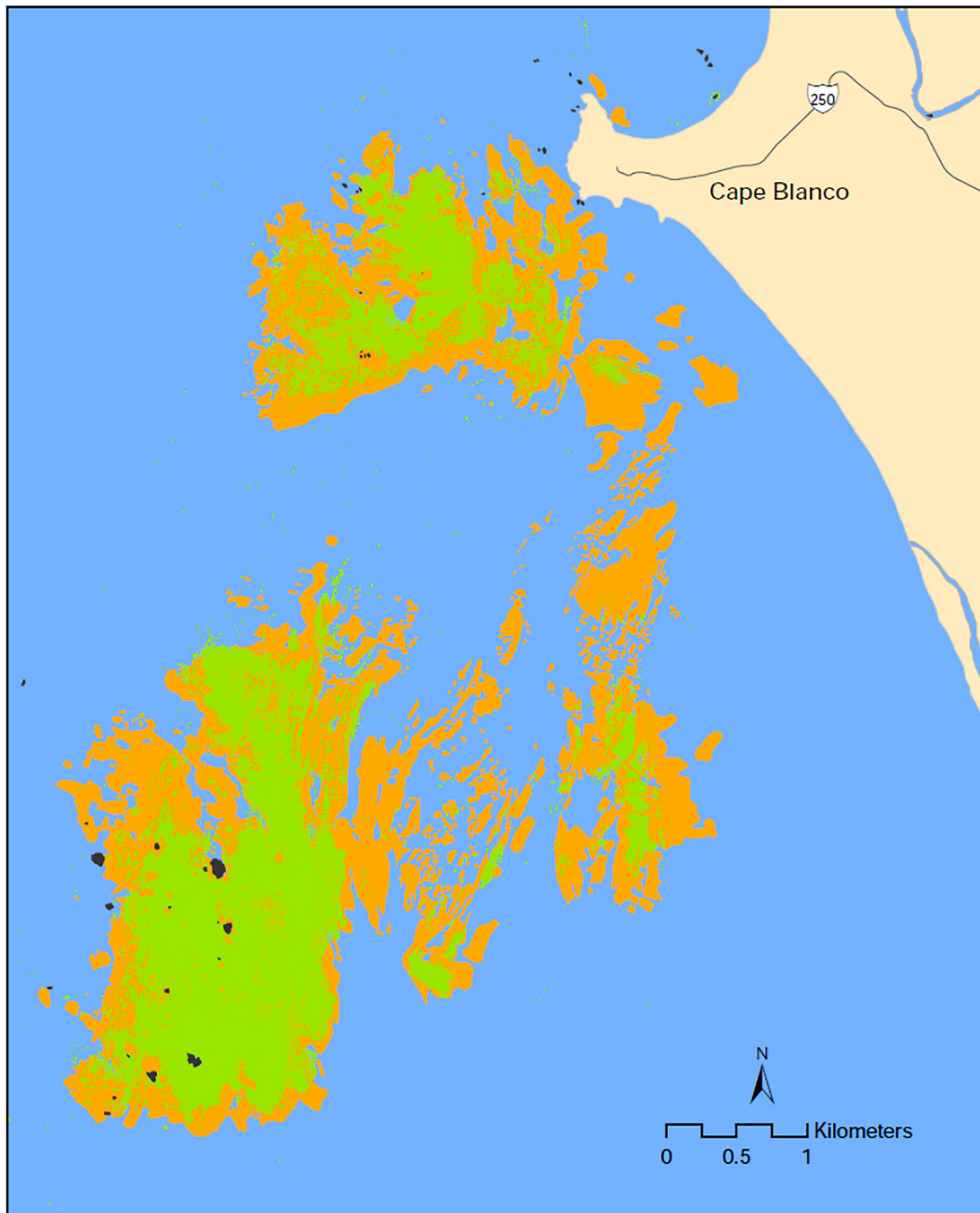
**Figure D.1.** Kelp canopy map for the area near Cape Arago, Oregon (Merems 2011).



Comparison of maximum kelp canopy extent at Cape Arago from all kelp surveys in Oregon. A single coastwide survey in 1990 (orange polygons) is overlaid with the kelp canopy of this current survey (green polygons). The 1990 kelp beds were delineated from near-infrared photography using methods that do not differentiate beds at the resolution of DMSI methods, so bed density is not comparable between survey types in this image.

*Note.* This region was not included in the 1996–1999 surveys. DMSI = digital multispectral imaging.

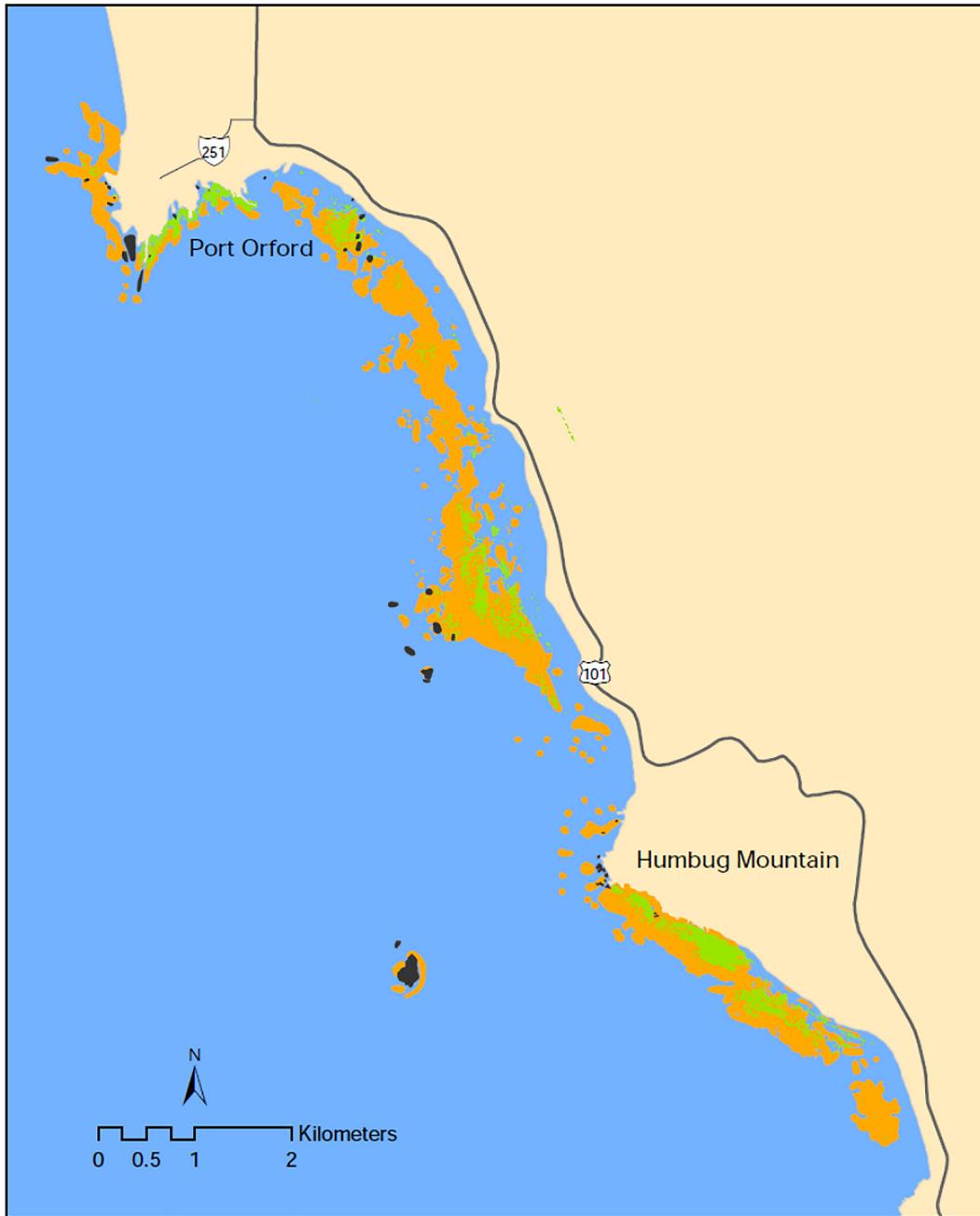
**Figure D.2.** Kelp canopy map for the area near Blanco and Orford Reefs, Oregon (Merems 2011).



Comparison of maximum kelp canopy extent at Blanco and Orford reefs from all kelp surveys in Oregon. A single coastwide survey in 1990 is merged with 5 annual south-coast regional surveys from 1996-99 (orange polygons) and is overlaid with the kelp canopy of this current survey (green polygons). The 1990-99 kelp beds were delineated from near-infrared photography using methods that do not differentiate beds at the resolution of DMSI methods, so bed density is not comparable between survey types in this image.

Note. DMSI = digital multispectral imaging.

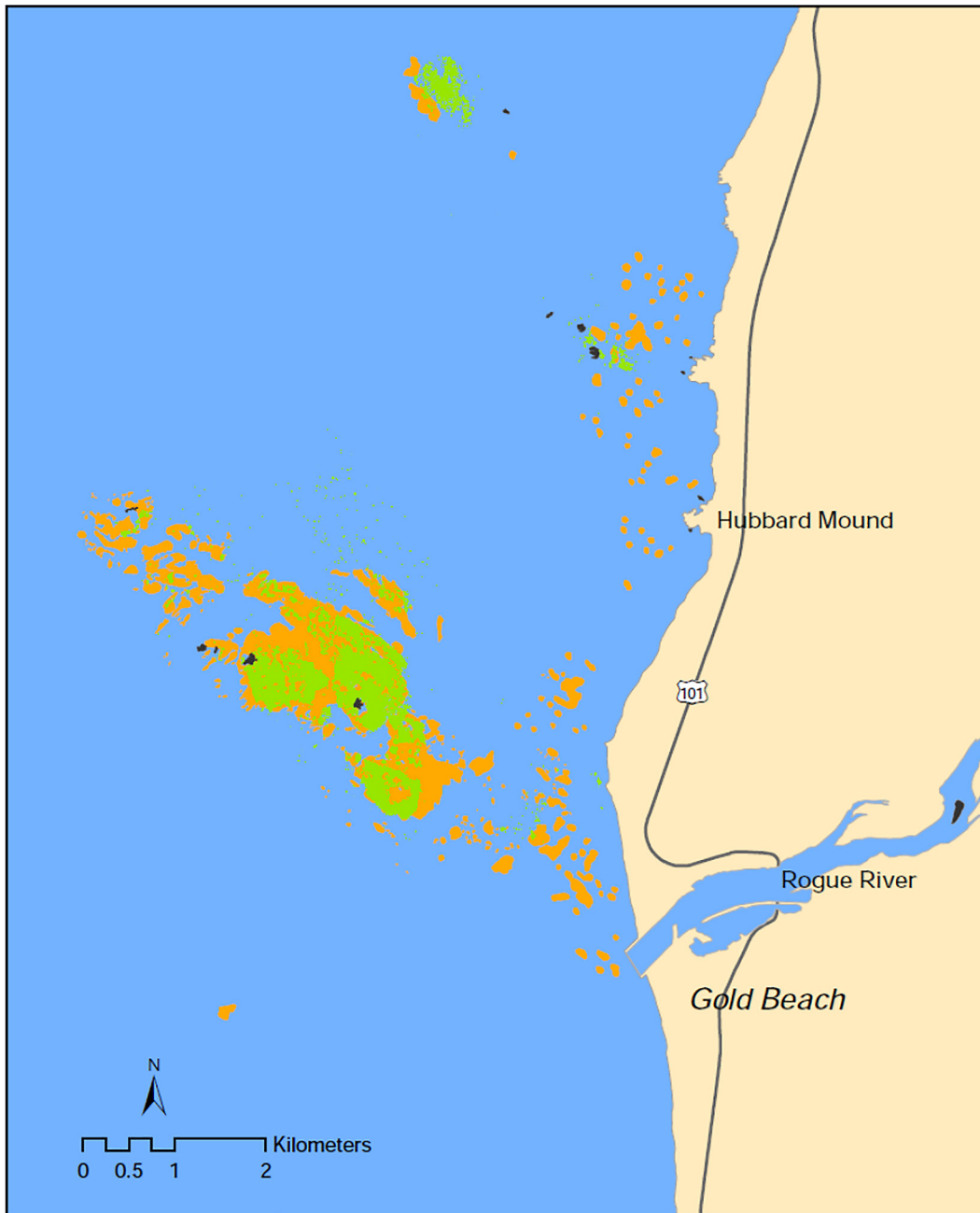
**Figure D.3.** Kelp canopy map for the area near Port Orford, Redfish Rocks, and Humbug Mountain, Oregon (Merems 2011).



Comparison of maximum kelp canopy extent at Redfish Rocks and Humbug Mountain reefs from all kelp surveys in Oregon. A single coastwide survey in 1990 is merged with 5 annual south-coast regional surveys from 1996-99 (orange polygons) and is overlaid with the kelp canopy of this current survey (green polygons). The 1990-99 kelp beds were delineated from near-infrared photography using methods that do not differentiate beds at the resolution of DMSI methods, so bed density is not comparable between survey types in this image.

Note. DMSI = digital multispectral imaging.

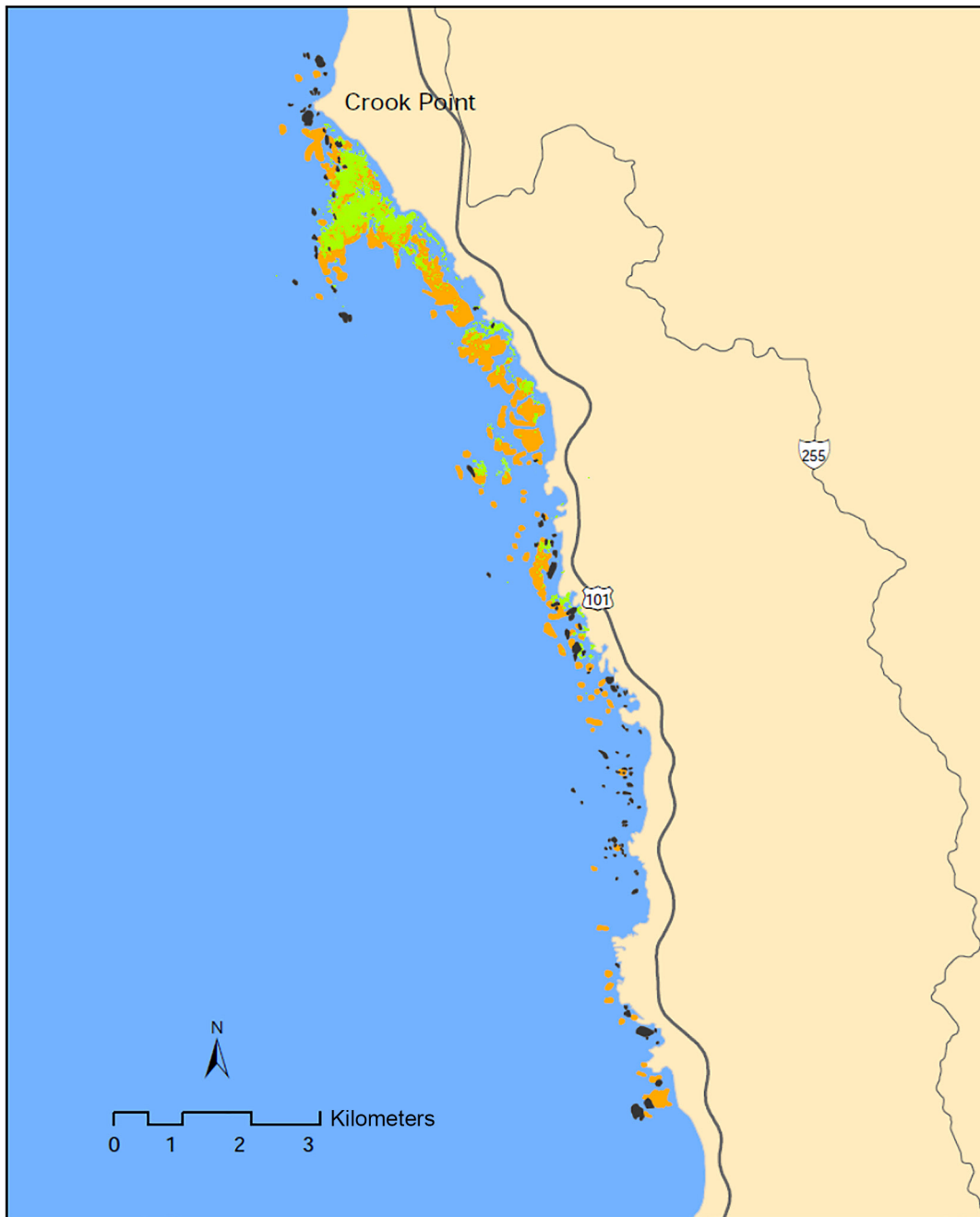
**Figure D.4.** Kelp canopy map for the area near Rogue River Reef, Oregon (Merems 2011).



Comparison of maximum kelp canopy extent at Rogue Reef and a nearby shallow reef from all kelp surveys in Oregon. A single coastwide survey in 1990 is merged with 5 annual south-coast regional surveys from 1996-99 (orange polygons) and is overlaid with the kelp canopy of this current survey (green polygons). The 1990-99 kelp beds were delineated from near-infrared photography using methods that do not differentiate beds at the resolution of DMSI methods, so bed density is not comparable between survey types in this image.

Note. DMSI = digital multispectral imaging.

**Figure D.5.** Kelp canopy map for the area near Crook Point and the Mack Arch Complex, Oregon (Merems 2011).



Comparison of maximum kelp canopy extent at Mack Arch from all kelp surveys in Oregon. A single coastwide survey in 1990 (orange polygons) is overlaid with the kelp canopy of this current survey (green polygons). The 1990 kelp beds were delineated from near-infrared photography using methods that do not differentiate beds at the resolution of DMSI methods, so bed density is not comparable between survey types in this image.

Note. This region was not included in the 1996–1999 surveys. DMSI = digital multispectral imaging.

**Figure D.6.** Kelp canopy map for the area near Cape Ferrelo, Oregon (Merems 2011).



Comparison of maximum kelp canopy extent at Cape Ferrelo from all kelp surveys in Oregon. A single coastwide survey in 1990 (orange polygons) is overlaid with the kelp canopy of this current survey (green polygons). The 1990 kelp beds were delineated from near-infrared photography using methods that do not differentiate beds at the resolution of DMSI methods, so bed density is not comparable between survey types in this image.

Note. This region was not included in the 1996–1999 surveys. No scale bar was provided for this map. DMSI = digital multispectral imaging.

#### LITERATURE CITED

Merems, A. 2011. *Kelp canopy and biomass survey* (T-22 N-03, Final Companion Report, Oregon State Wildlife Grant Program). Salem, OR: Oregon Department of Fish and Wildlife.