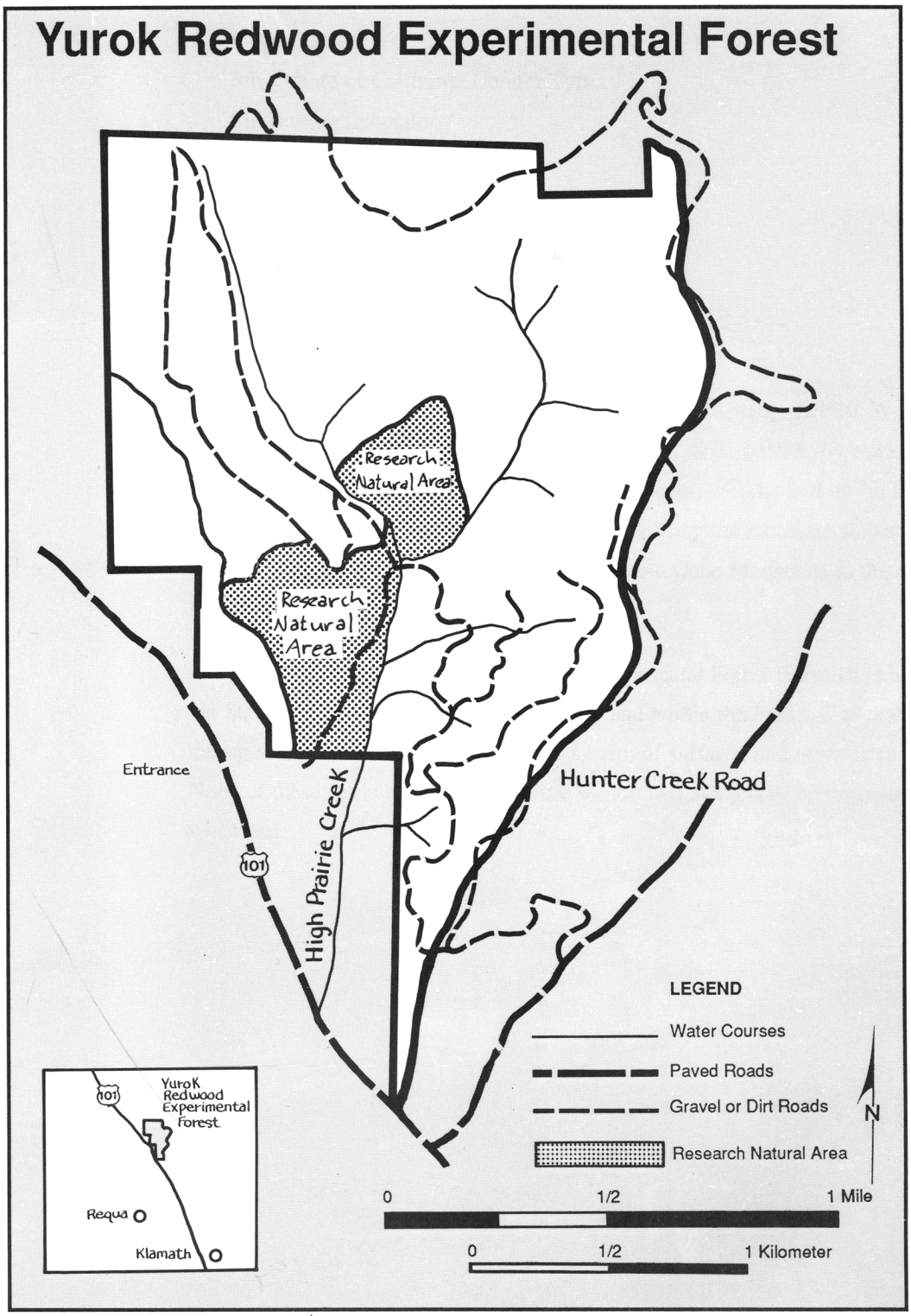
Yurok Redwood Experimental Forest
Research Natural Area
Research Natural Area
Entrance
101
High Prairie Creek
Hunter Creek Road
LEGEND
Water Courses
Paved Roads
Gravel or Dirt Roads
Research Natural Area
N
0
1/2
1 Mile
0
1/2
1 Kilometer
101
Yurok Redwood Experimental Forest
Requa
Klamath

YUROK REDWOOD
Experimental Forest

The Yurok Redwood Experimental Forest was established in 1940 to study the silviculture of coast redwood *(Sequoia sempervirens)* and to develop techniques for regeneration and management. The Experimental Forest includes 379 hectares drained by High Prairie Creek. Redwood is the principal timber species on the forest with Douglas-fir *(Pseudotsuga menziesii)*, Sitka spruce *(Picea sitchensis)*, western hemlock *(Tsuga heterophylla)*, and Port Orford-cedar *(Chamaecyparis lawsoniana)* making up the remainder. About 59 percent of the timberland is classified as Site I; 35 percent is classified as Site II. Tree ages range up to 1200 years. Topography varies considerably over the forest. Slopes range from 0 percent to greater than 75 percent.

About 45 percent of the total area (226 ha out of 502 ha) was clearcut in harvest units ranging from 1.2 to 62.7 hectares between 1956 and 1985. About 1 percent (4 ha) was harvested in 1981 using the selection system. An additional 23 percent (87 ha) is available for approved manipulative research studies and 16 percent (61 ha) is preserved in an undisturbed old-growth redwood forest condition in the Yurok Research Natural Area, established in 1976. An ecological survey was conducted in 1982 for the Research Natural Area (Taylor 1982).

CLIMATE

The climate is typically mild and foggy in summer. The average July temperature is 12.6°C, with little precipitation other than fog drip. The average January temperature is 6.8°C. Annual rainfall averages 1933 millimeters and snowfall is uncommon. No climatic data are maintained at the Experimental Forest, but data are available from the town of Klamath, in a similar climatic environment 6.4 kilometers south, and from Crescent City, 27.2 kilometers north of the Forest. Precipitation is well in excess of potential evapotranspiration, except for about a month in midsummer.

SOILS

The entire region is underlain by Mesozoic rocks of the Franciscan Formation, a complex of raw to slightly metamorphic sedimentary rocks. This formation is generally soft and easily weathered, so that soil development is good, with unweathered regolith at depths of about 3 meters in most areas. Rock outcrops are few and, where they do occur, shallow soils and exposure combine to make such sites ecologically unique. The major soil series is Melbourne, with a small amount of Hugo Series along the ridge tops (about 6.5 ha) and Atwell Series at the lower elevations on the southern part of the Forest (about 2.0 ha). Unclassified alluvial soils are found along High Prairie Creek on a total of about 32.4 hectares.

MAIN COMMUNITIES

The Yurok Research Natural Area supports very dense stands of old-growth redwood averaging about 200 square meters per hectare. The two dominant vegetation types on the forest are *Sequoia sempervirens–Polystichum munitum* and *Alnus rubra–Rubus spectabilis.*

DATA BASES

Maps

Soil-vegetation maps are available for the general area.

Timber Data

Regeneration after cutting, young stand growth and yield, response to thinning, and redwood sprout development were recorded intermittently between 1956 and 1982. Post-harvest regeneration and effects of shelterwood removal were recorded between 1970 and 1985.

Wildlife Habitat Data

Data are available on species composition and abundance of vertebrate communities in response to changes in age, moisture, and structural features of forest stands from 1983 to 1985.

Fish Habitat Data

Stream reaches and distribution of fish species in High Prairie Creek were mapped from 1984 to 1987.

EXAMPLES OF RESEARCH

- Salmonid preference for obstacle-formed pools
- Stream structure and fish production
- Ecology of old-growth forest wildlife habitat community.

FACILITIES

Dormitory and office space, garage, storage areas, and several small houses are available on an administrative site. However, only some of these facilities are maintained on a regular basis. Commercial facilities are available in Crescent City and Klamath.

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LOCATION

The Yurok Redwood Experimental Forest is located on the coastal front of the North Coast Ranges in northern California, about 2.4 kilometers inland from the Pacific Ocean and near the mouth of the Klamath River, approximately at latitude 41°35′ N. and longitude 124°05′ W. (see map). Elevation ranges from 457 to 3658 meters

The Experimental Forest is readily accessible from U.S. Highway 101, 27.2 kilometers south of Crescent City and 6.4 kilometers from Klamath.

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APPENDIX—METRIC CONVERSION TABLE

Metric Unit	British Equivalent
kilometer (km)	0.622 mi
millimeter (mm)	0.039 inch
centimeter (cm)	0.394 inch
meter (m)	3.281 ft
grams per square meter ($g/m^2/yr$)	4.885×10^{-3} $lb/ft^2/y$ per year
hectare (ha)	2.471 acres
square kilometer (km^2)	0.386 square miles
cubic meters per year (m^3/yr)	1.129×10^{-6} ft^3/s
	8.107×10^{-4} acre-ft/yr
liters per second (l/s)	0.0369 ft^3/s
degree Celsius (°C)	(°F- 32) x 0.556
kilogram (kg)	0.454 lb
cubic meters per hectare (m^3/ha)	71.457 bd ft/acre

The Forest Service, U. S. Department of Agriculture, is responsible for Federal leadership in forestry. It carries out this role through four main activities:

- Protection and management of resources on 191 million acres of National Forest System lands
- Cooperation with State and local governments, forest industries, and private landowners to help protect and manage non-Federal forest and associated range and watershed lands
- Participation with other agencies in human resource and community assistance programs to improve living conditions in rural areas
- Research on all aspects of forestry, rangeland management, and forest resources utilization.

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