

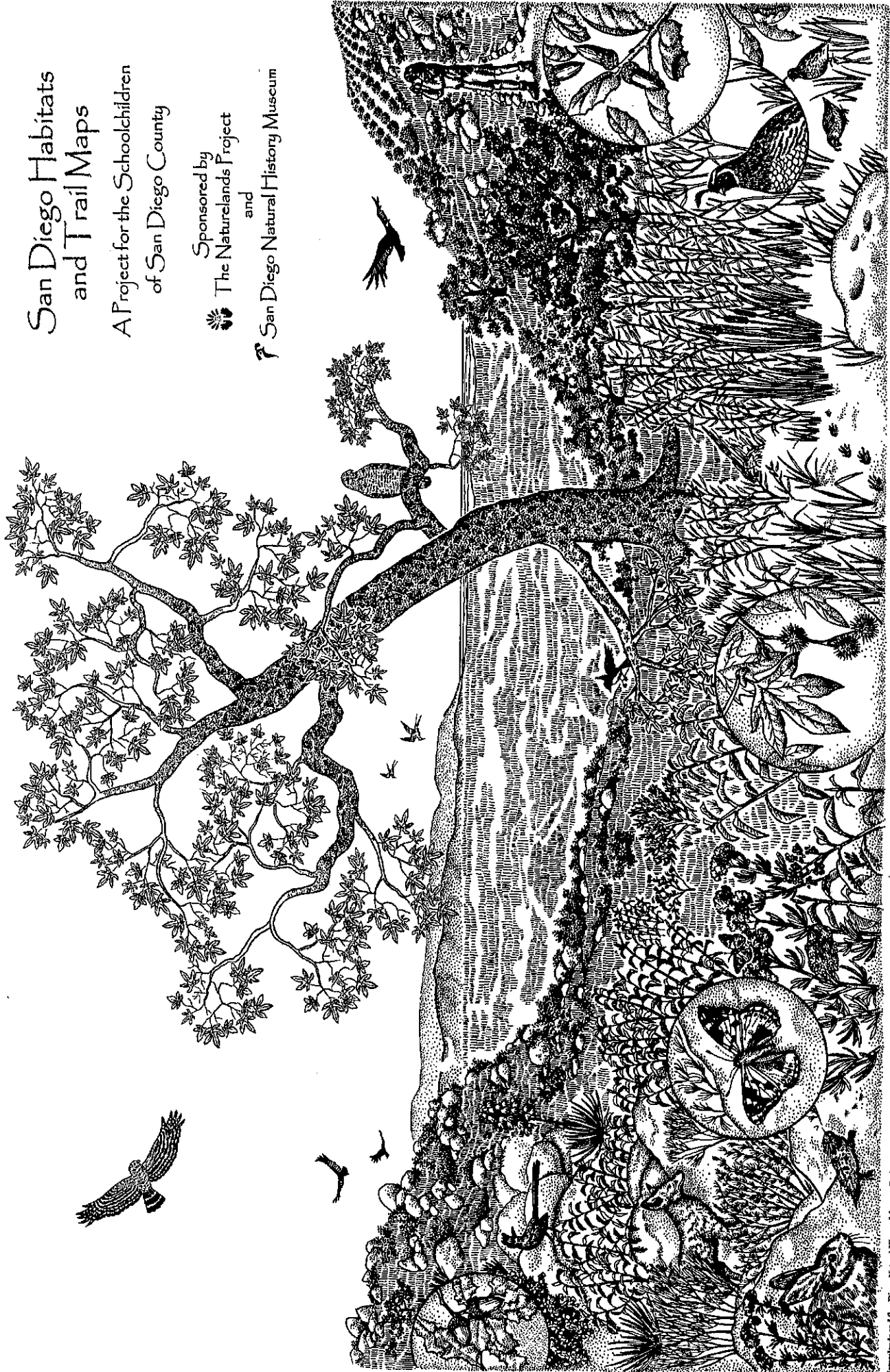
San Diego Habitats and Trail Maps

A Project for the Schoolchildren
of San Diego County

Sponsored by
The Naturelands Project



and
San Diego Natural History Museum

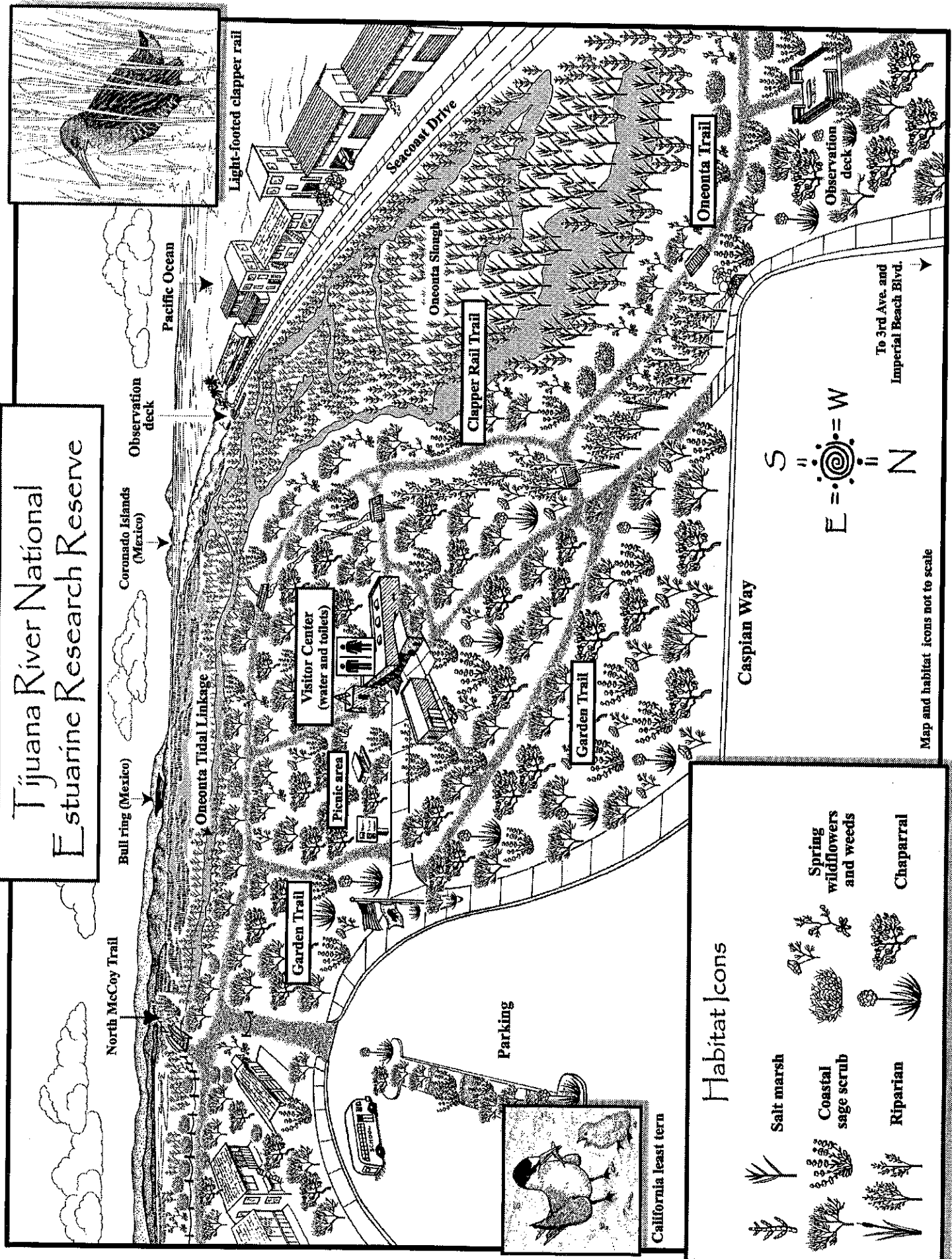


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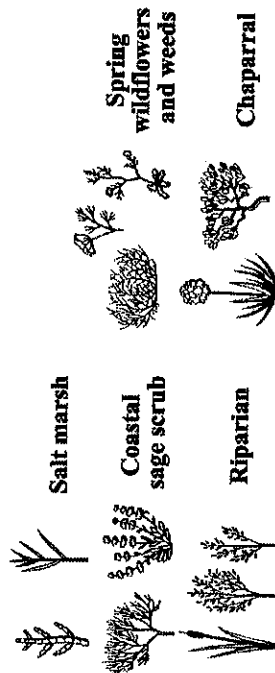
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A Naturelands and San Diego Natural History Museum Project

Tijuana River National Estuarine Research Reserve



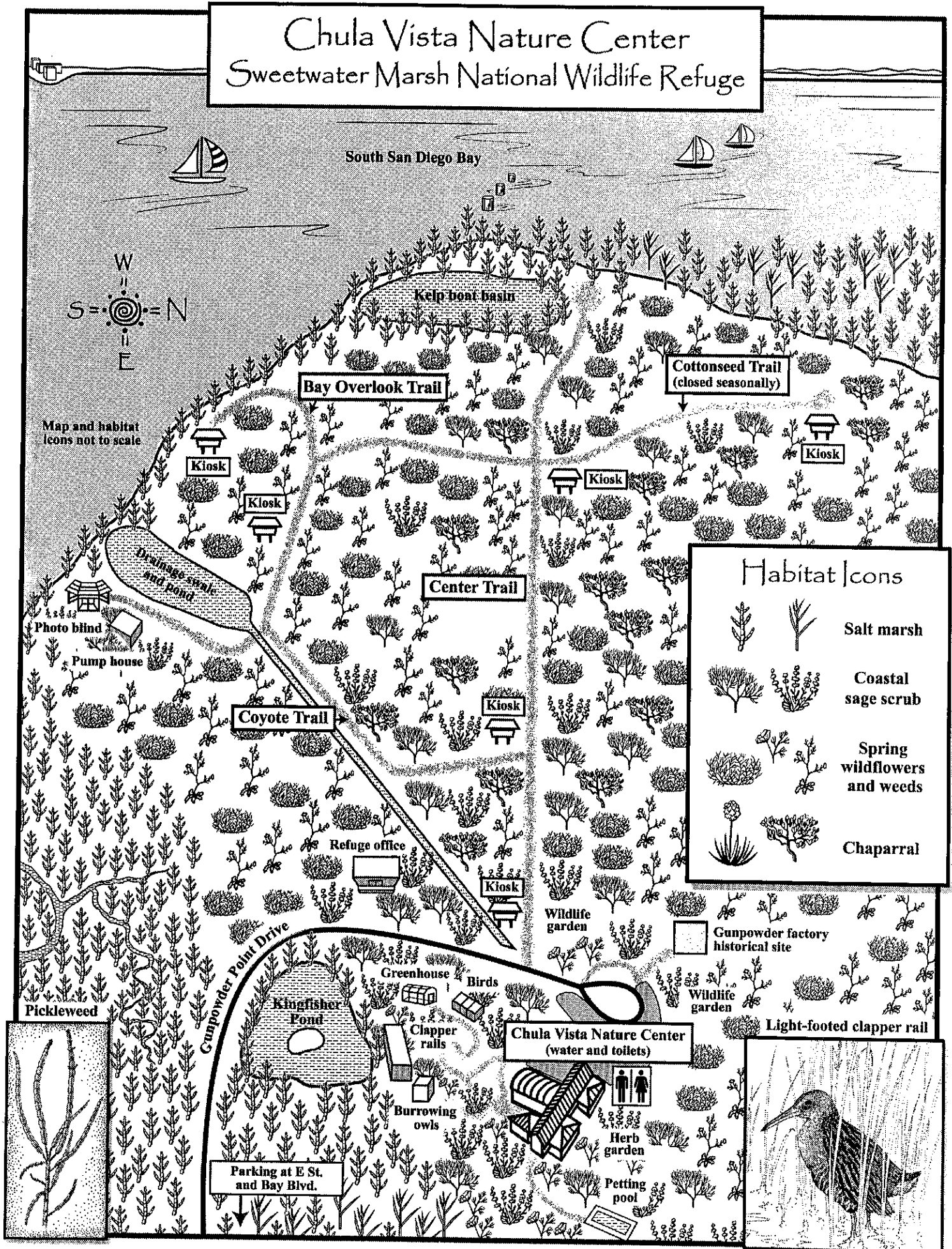
Habitat Icons



Map and habitat icons not to scale





Chula Vista Nature Center

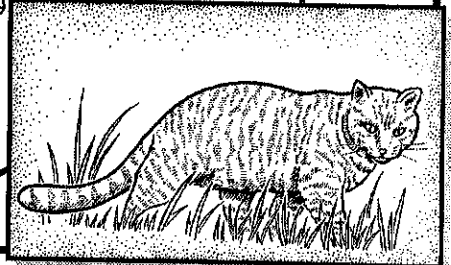
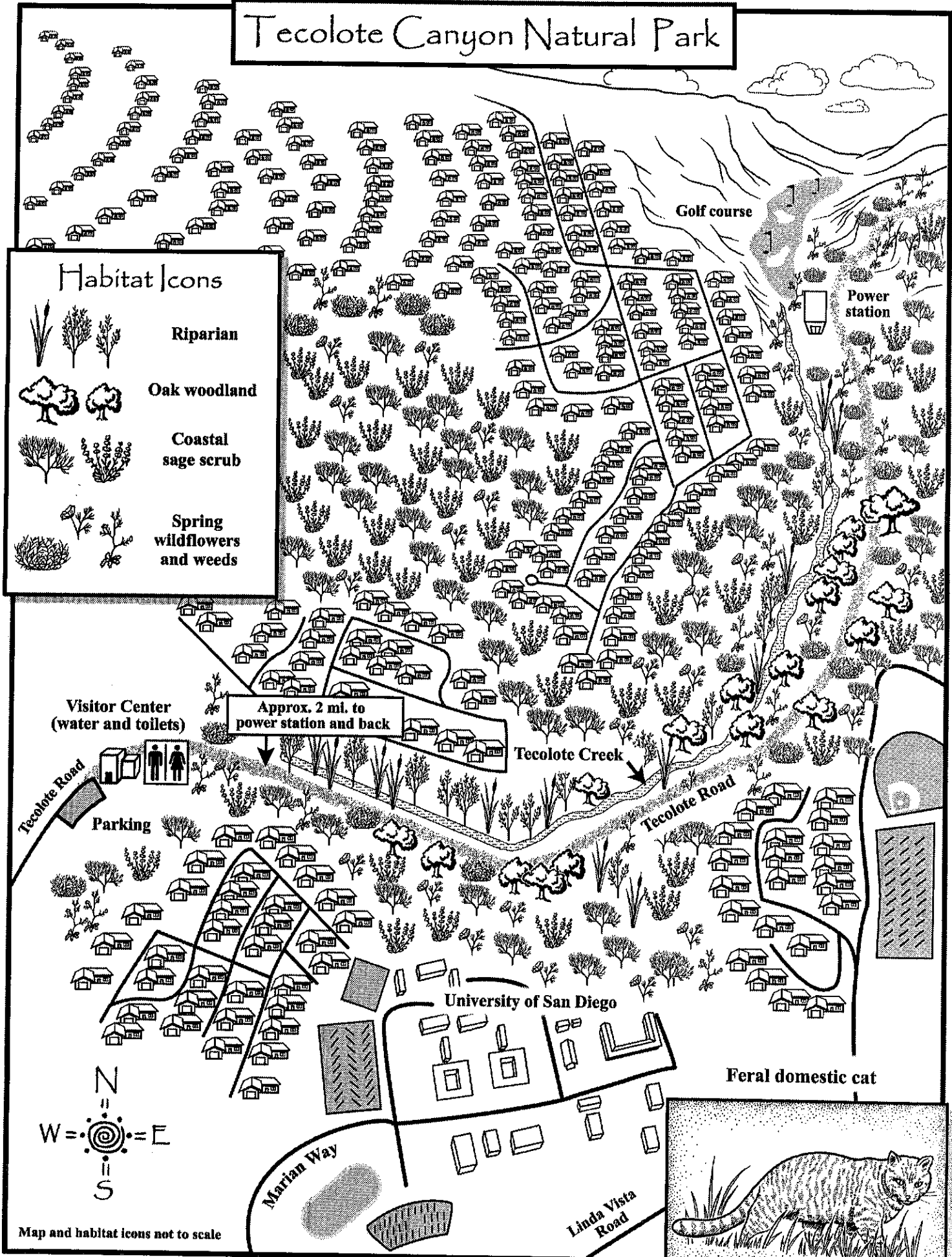
Sweetwater Marsh National Wildlife Refuge



Tecolote Canyon Natural Park

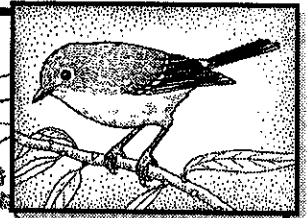
Habitat Icons

-  **Riparian**
-  **Oak woodland**
-  **Coastal sage scrub**
-  **Spring wildflowers and weeds**



Map and habitat icons not to scale

Mission Trails Regional Park



Least Bell's vireo

Habitat Icons



Riparian



Oak woodland



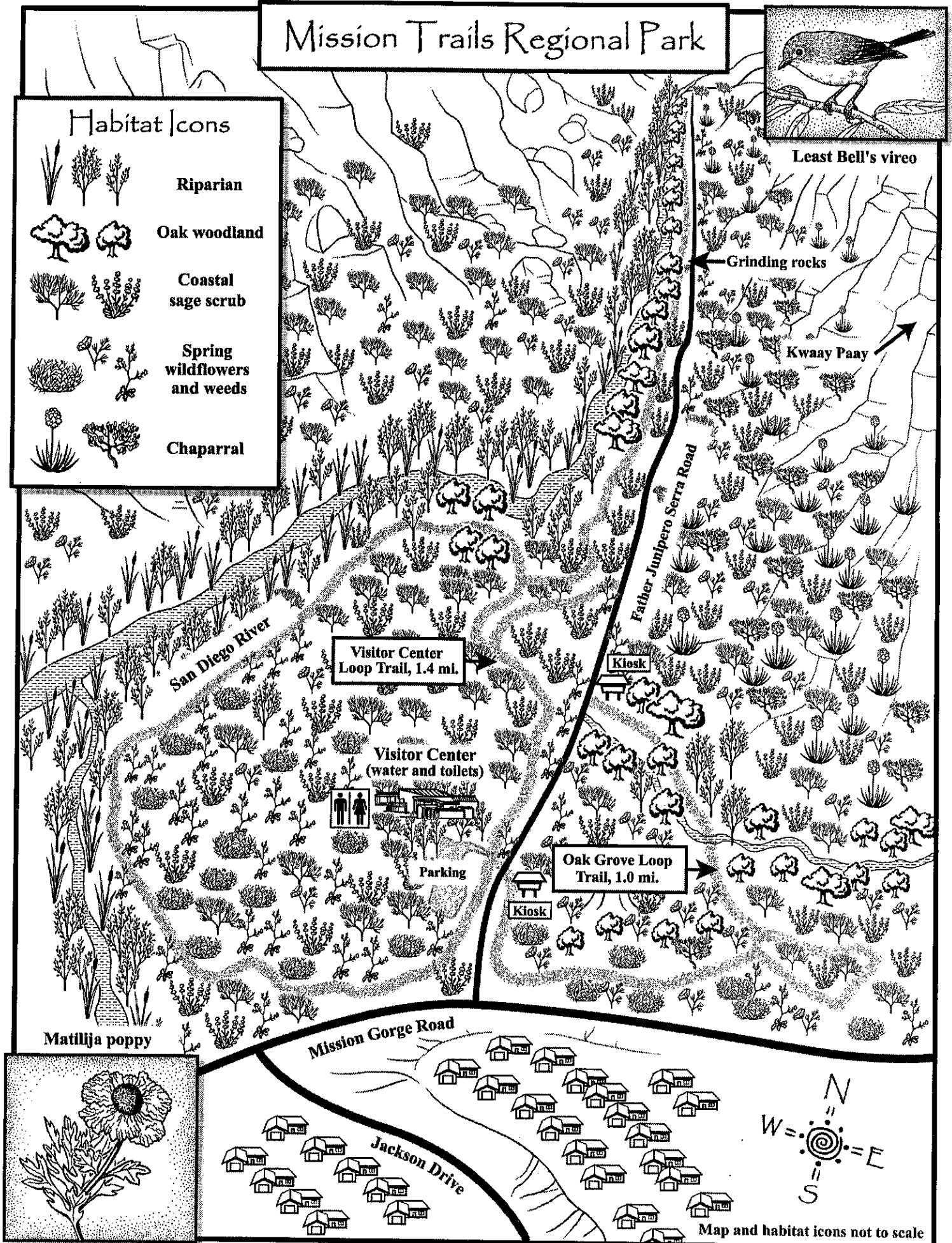
Coastal sage scrub



Spring wildflowers and weeds



Chaparral



Grinding rocks

Kwaay Paay

San Diego River

Visitor Center
Loop Trail, 1.4 mi.

Visitor Center
(water and toilets)

Parking

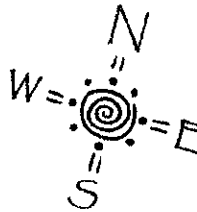
Father Junipero Serra Road

Oak Grove Loop
Trail, 1.0 mi.

Mission Gorge Road

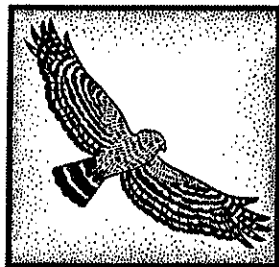
Jackson Drive

Matilija poppy

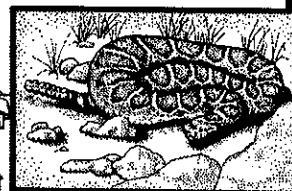


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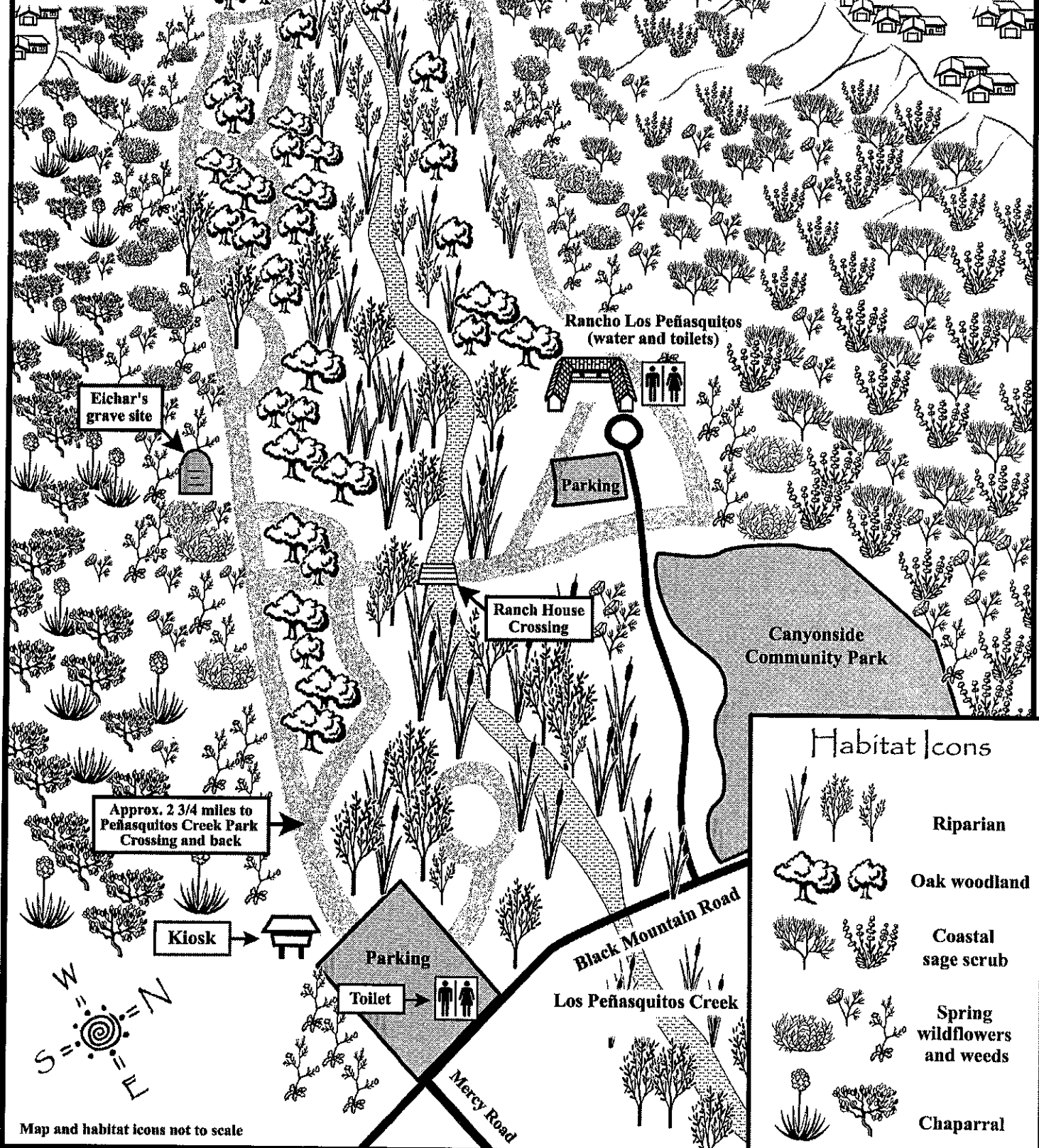
Los Peñasquitos Canyon Preserve

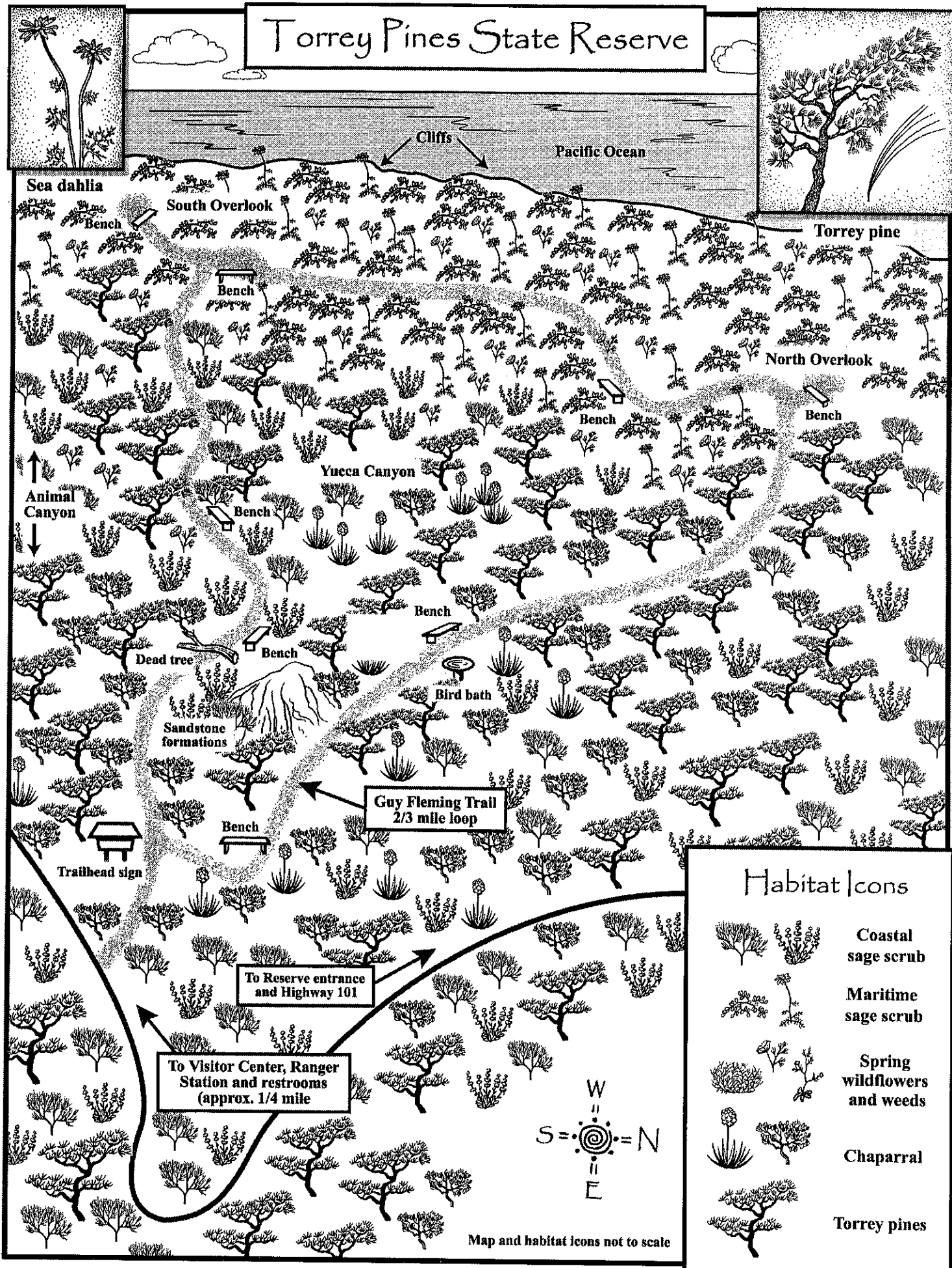


Red-shouldered hawk

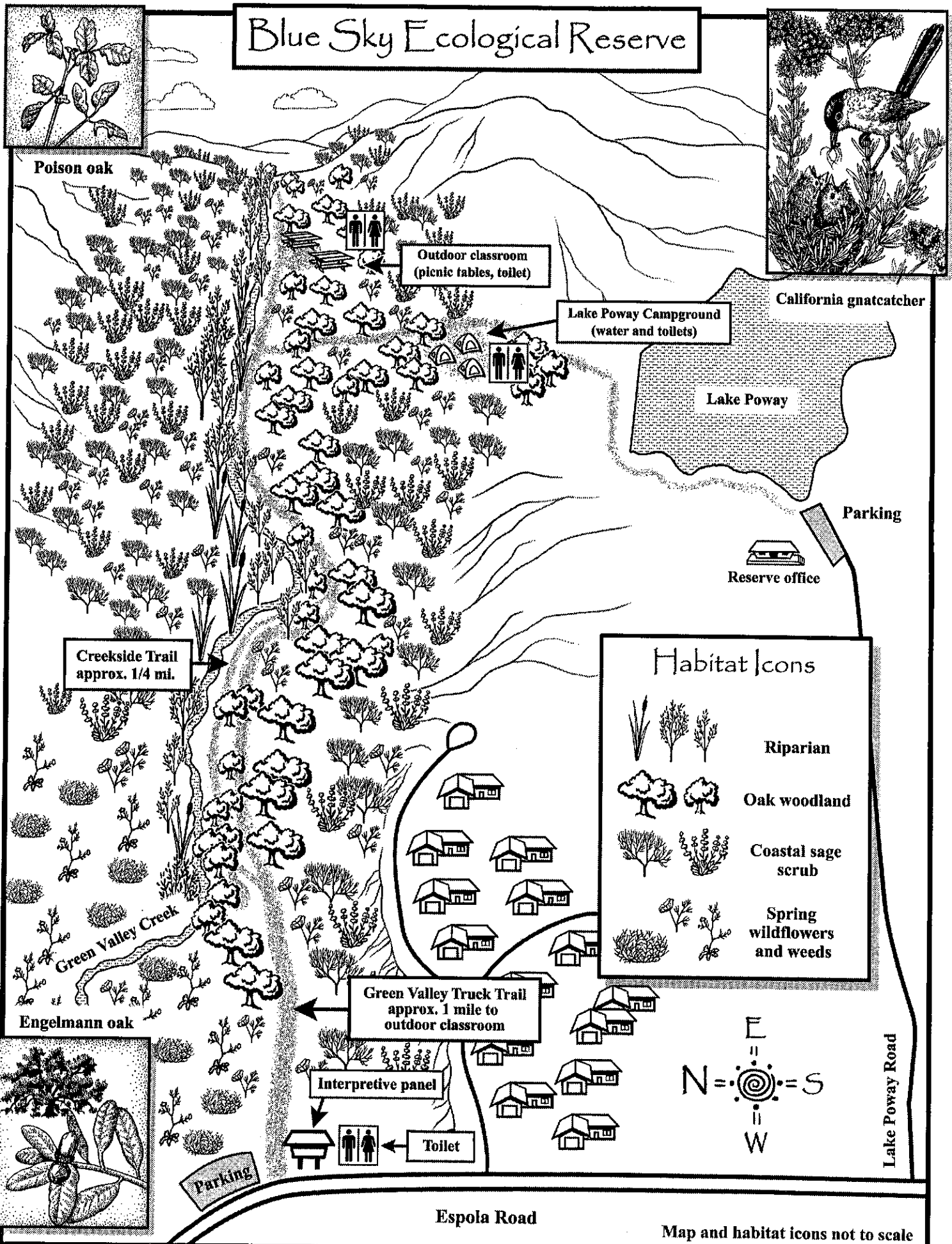


Rattlesnake



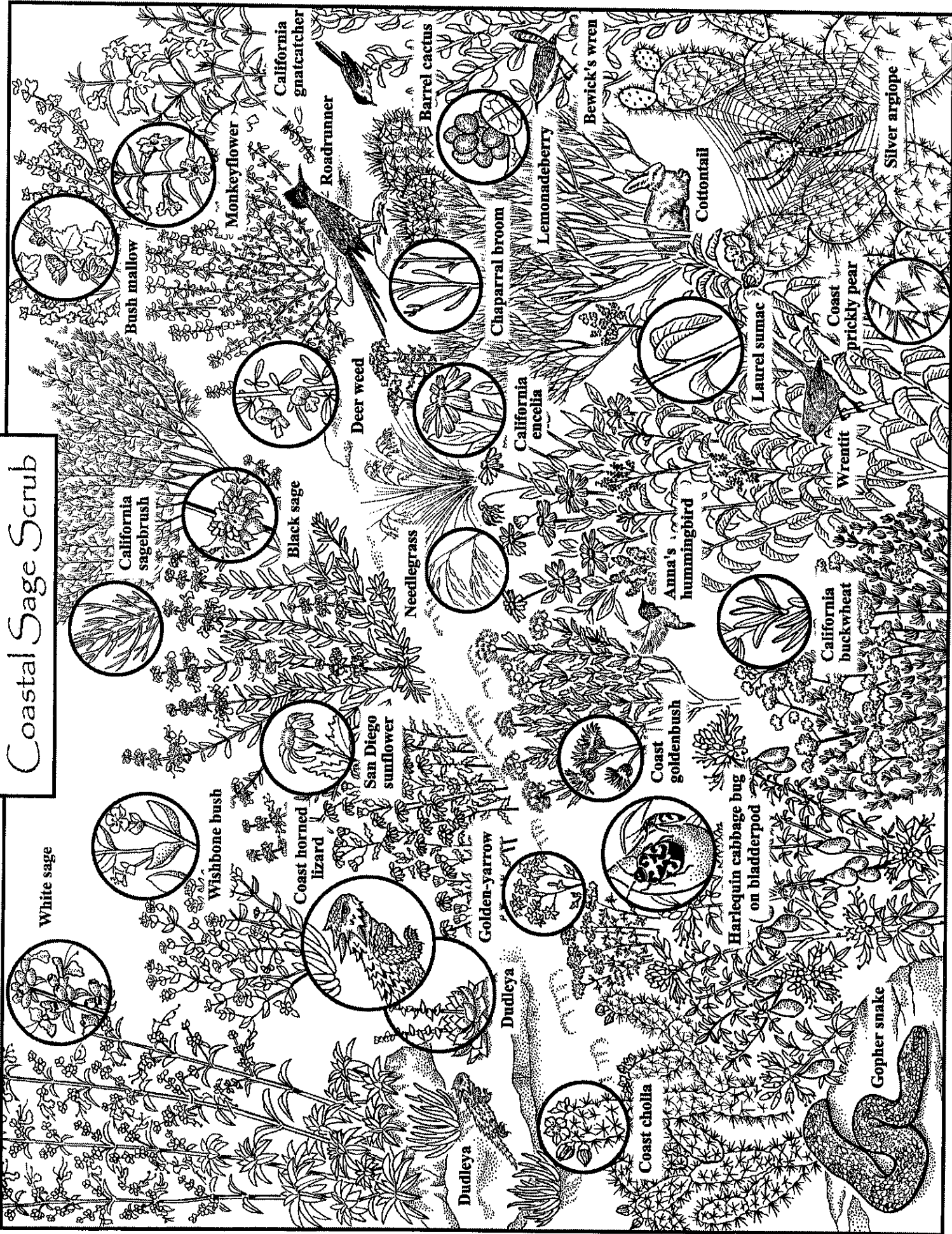


Blue Sky Ecological Reserve



Map and habitat icons not to scale

Coastal Sage Scrub



White sage

California sagebrush

Bush malow

Wishbone bush

Monkeyflower

Coast horned lizard

Black sage

San Diego sunflower

Roadrunner

Deer weed

Needlegrass

Golden-yarrow

Barrel cactus

Dudleya

Dudleya

Golden-yarrow

Chaparral broom

Coast cholla

California encelia

Lemonadeberry

Coast goldenbush

Bewick's wren

Coast cholla

Harlequin cabbage bug on bladderpod

Anna's hummingbird

Laurel sumac

Cottontail

Coast prickly pear

California buckwheat

Wrenit

Coast prickly pear

Cottontail

Bewick's wren

Gopher snake

Silver argiope

Coastal Sage Scrub



White sage
Mint family
Salvia apiana

Shrub with pungent, hairy, grayish-white leaves. Irregularly-shaped pale lavender flowers grow on wands.



Wishbone bush
Four o'clock family
Mirabilis californica

Short shrub with regularly-shaped deep pink flowers. Ovate bright green leaves grow in opposite pairs on stem.



Coast horned lizard
Iguana family
Phrynosoma coronatum

You can't mistake it for anything else. Eats a variety of small insects and especially likes ants. Likes to sun itself. Becoming very rare in the wild.



Dudleya
Stonecrop family
Dudleya sp.

Low-growing plant with succulent (fleshy) leaves sometimes covered with white dust. Stalk with numerous yellow or pink flowers grows in spring.



Golden-yarrow
Sunflower family
Eriophyllum confertiflorum

Common spring perennial with many small bright yellow flowers at the end of tall whitish stems; lacy leaves.



Bladderpod/ Harlequin cabbage bug
Caper family/ True bug order
Isomeris arborea/ Murgantia histrionica
Shrub with large irregular shaped mustard-yellow flowers; pod-like fruit, three-part leaves smell bad when rubbed. This bug's red, orange, and black colors warn predators to leave it alone. It ingests this plant's toxins, to which it is immune.



Coast cholla
Cactus family
Opuntia prolifera
Many-armed cactus with reddish flowers. Cactus pieces detach easily, fall to the ground and sprout roots, becoming new plants. They can also hook onto you! Use a comb to remove them.



California sagebrush
Sunflower family
Artemisia californica

Shrub has thin divided leaves that smell like sage. Flowers inconspicuous; plant turns brown in summer when water is scarce.



San Diego sunflower
Sunflower family
Viguiera laciniata

Common medium-sized shrub with showy yellow flowers. Wavy-edged leaves can be opposite each other on stem (this is unusual).



California encelia
Sunflower family
Encelia californica

Shrub has yellow sunflowers with dark centers and bright green lance-shaped leaves.



Black sage
Mint family
Salvia mellifera

Shrub with pungent, dark green leaves. Irregularly-shaped blue flowers grow in clusters around stem.



Coast goldenbush
Sunflower family
Isocoma menziesii

Common shrub with fuzzy golden yellow flowers and saw-toothed leaf edges.



Needlegrass
Grass family
Nasella sp.

Native perennial bunch grass once was common, but since the arrival of Europeans, has been largely replaced by non-native annual grasses.



California buckwheat
Buckwheat family
Eriogonum fasciculatum

Shrub with balls of small white to pink flowers growing at end of naked stems; needle-shaped leaves in bundles along lower stem. Flowers turn rust-colored in fall and winter.



Bush mallow
Mallow family
Malacothamnus fasciculatum

Shrub has five-petaled cup-shaped pink flowers; leaves are palmately lobed with short hairs in star-like clusters.



Monkeyflower
Snapdragon family
Mimulus sp.

Shrub with irregular, trumpet-shaped yellow, orange, or red flowers and sticky leaves.



Deer weed
Pea family
Lotus scoparius

Shrub with irregularly-shaped yellow flowers that turn red after pollination. Leaves divided into three leaflets.



Lemonadeberry
Cashew/sumac family
Rhus integrifolia

Tall shrub with leathery oblong-ovate leaves 1" to 2" long. Small regular white flowers develop red, acidic fruits.



Chaparral broom
Sunflower family
Baccharis sarothroides

Common shrub with green stems (frequently no leaves) and fuzzy, dull straw-colored flowers.



Laurel sumac
Cashew/sumac family
Malosma laurina

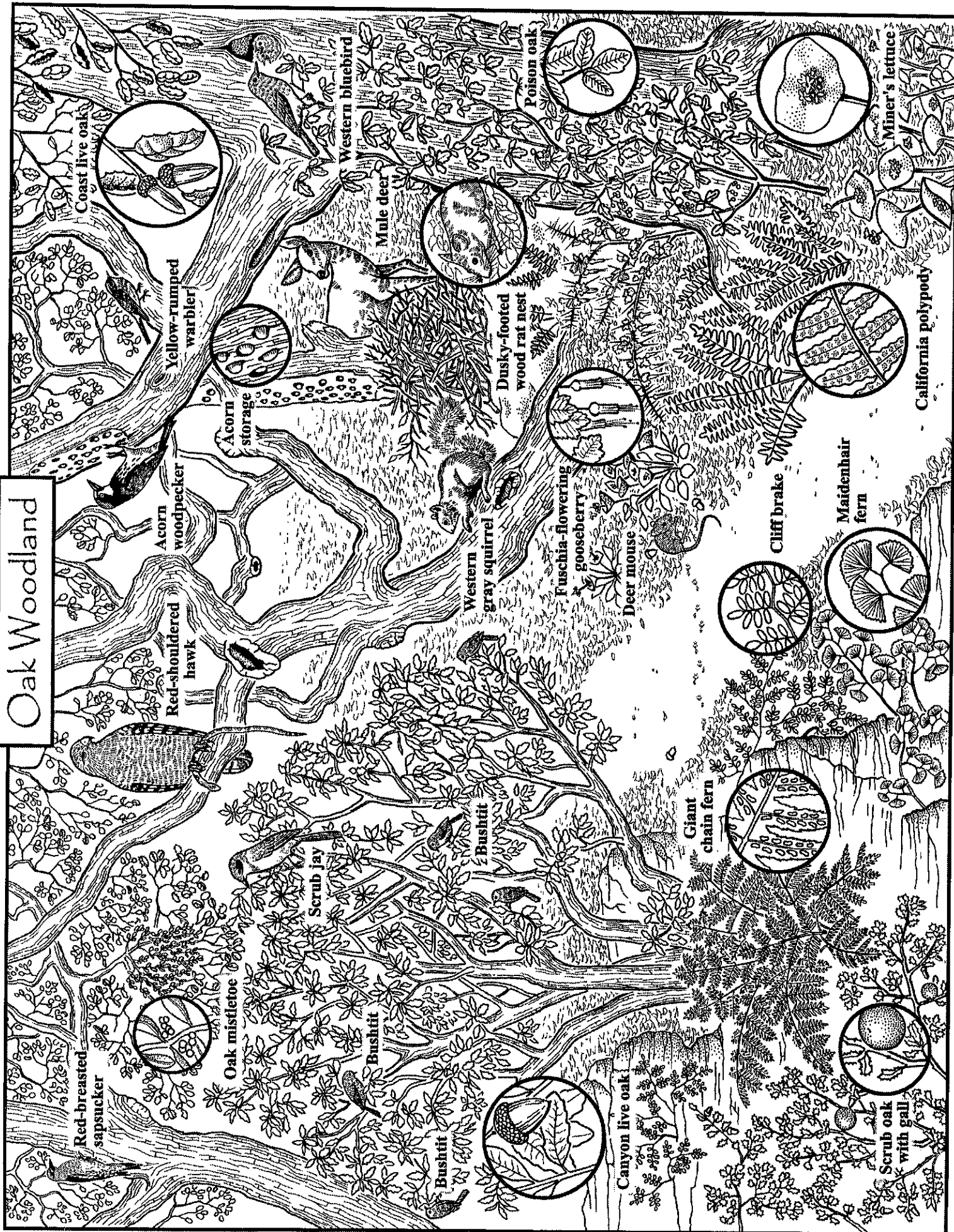
Common, tall shrub with leaves that look like taco shells. Small white flowers grow in cone-shaped masses at end of stems.



Coast prickly pear
Cactus family
Opuntia littoralis

Can grow erect to 5' tall or spreading; stems are flat succulent pads. Showy yellow flowers, large red edible fruits.

Oak Woodland



Oak Woodland



Oak mistletoe
Mistletoe family
Phoradendron villosum

Semi-parasite; stiff green leaves; white to pink sticky berries.



Acorn storage
Acorn woodpeckers drill holes, then stuff them with acorns.



Coast live oak
Oak family
Quercus agrifolia
Tall, rounded, many-branched tree with cupped, prickly-edged leaves. Long, stout, pointed acorns.



Canyon live oak
Oak family
Quercus chrysolepis

Long leaf with prickly edges or smooth; very large cup on acorns.



Fuchsia-flowering gooseberry
Currant family
Ribes speciosum

Red-stemmed prickly bush; red "dangling" flowers along branch.



Dusky-footed wood rat
Rodent family
Neotoma fuscipes

Home is a collection of sticks and branches piled on the ground or in a tree.



Giant chain fern
Fern family
Woodwardia fimbriata

Mature plant can have fronds 5' to 9' tall, with many deep green leaves forming large cluster. Leaves thick, wide and leathery; "chain" refers to spores on back of leaf.



Cliff brake
Fern family
Pellaea sp.

Tangle of reddish-brown or dull green stems, with straw-colored leafstalks. Underside of leaves curled.



Poison oak
Cashew/Sumac family
Toxicodendron diversilobum

Three-part leaf with no stems, turning red in late summer. Many people are sensitive to this plant's oils.



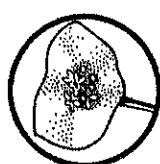
Scrub oak with gall
Oak family
Quercus berberidifolia

Apple-like scrub oak galls are the plant's response to oak gall wasp larvae growing inside the plant's tissues.



Maidenhair fern
Fern family
Adiantum jordanii

Reddish brown to blackish stem; individual leaflets look like fans.



Miner's lettuce
Purslane family
Claytonia perfoliata

Bright green leaves surrounding stem, with flowers emerging from center of leaf.



California polypody
Fern family
Polypodium californicum

Immature fiddleheads appear in early November; fronds grow from 6" to 16" long. Doesn't like water; leaves die back in summer.

Riparian

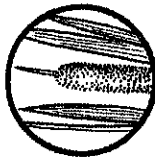


Riparian



Fremont cottonwood
Willow family
Populus fremontii

Beautiful, deciduous tree with shiny, bright green, coarsely serrated, deltoid (triangular) leaves. Has separate male and female catkins.



Cattail
Cattail family
Typha sp.

Tall, slender blade with brown, velvety "hot dog" near top.



Spiny rush
Rush family
Juncus acutus

Rigid, round stems without leaves have sharp tips.



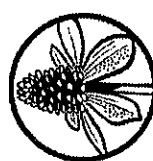
Elderberry
Honeysuckle family
Sambucus mexicana

Straggly tree, light green leaves. Creamy flowers; dark blue berries.



Wild rose
Rose family
Rosa californica

Five-petaled pink flower; shrub bears thorns.



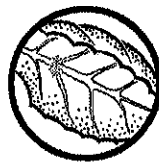
Yerba mansa
Lizard-tail family
Anemopsis californica

Prominent conical head bearing small white flowers; basal leaves turn red with age.



Coast live oak
Oak family
Quercus agrifolia

Tall, rounded, many-branched tree with cupped, prickly-edged leaves. Long, stout, pointed acorns.



Coast live oak leaf

Underside with fuzzy spot at junction of side vein with main vein. Only oak with this character. Take a look!



Mistletoe
Mistletoe family
Phoradendron sp.

Semi-parasite; stiff green leaves; white to pink sticky berries. Grows on oaks, sycamores, cottonwoods.



Sandbar willow
Willow family
Salix hindiana

Shrub has narrow, hairy leaves with very short stems. All willows have separate male and female flower spikes called catkins.



Arroyo willow
Willow family
Salix lasiolepis

Slender leaf; dark green above, lighter below. Leaves frequently have insect galls, which may be red.



Poverty weed
Sunflower family
Iva hayesiana

Three veins from base of leaf. Oblanceolate (attached to stem at narrow end), blunt-tipped leaf.



Sycamore
Sycamore family
Platanus racemosa

Maple-like leaves; mottled trunk; dangling seeds.



Wild grape
Grape family
Vitis girdiana

Palmate leaves, rambling woody vine. Produces edible grapes.



Mule fat
Sunflower family
Baccharis glutinosa

Willow-like leaves, but look for three veins and toothed edges. Fuzzy, pinkish to dirty white flowers, no petals.



Poison oak
Cashew/Sumac family
Toxicodendron diversilobum

Three leaves with no stems, vining up trees. Turns red in fall. Contains irritating oils.



Pacific treefrog
Treefrog family
Hyla regilla

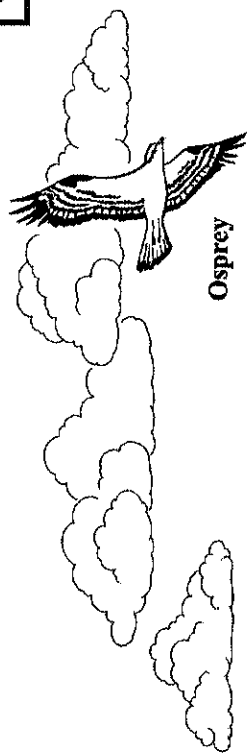
Small, to 2 inches long; lacks webbing between toes. Uses adhesive toepads to climb trees.



Mourning cloak
Butterfly and moth order
Nymphalis antiopa

Purplish-black wings with blue spots and yellow border.

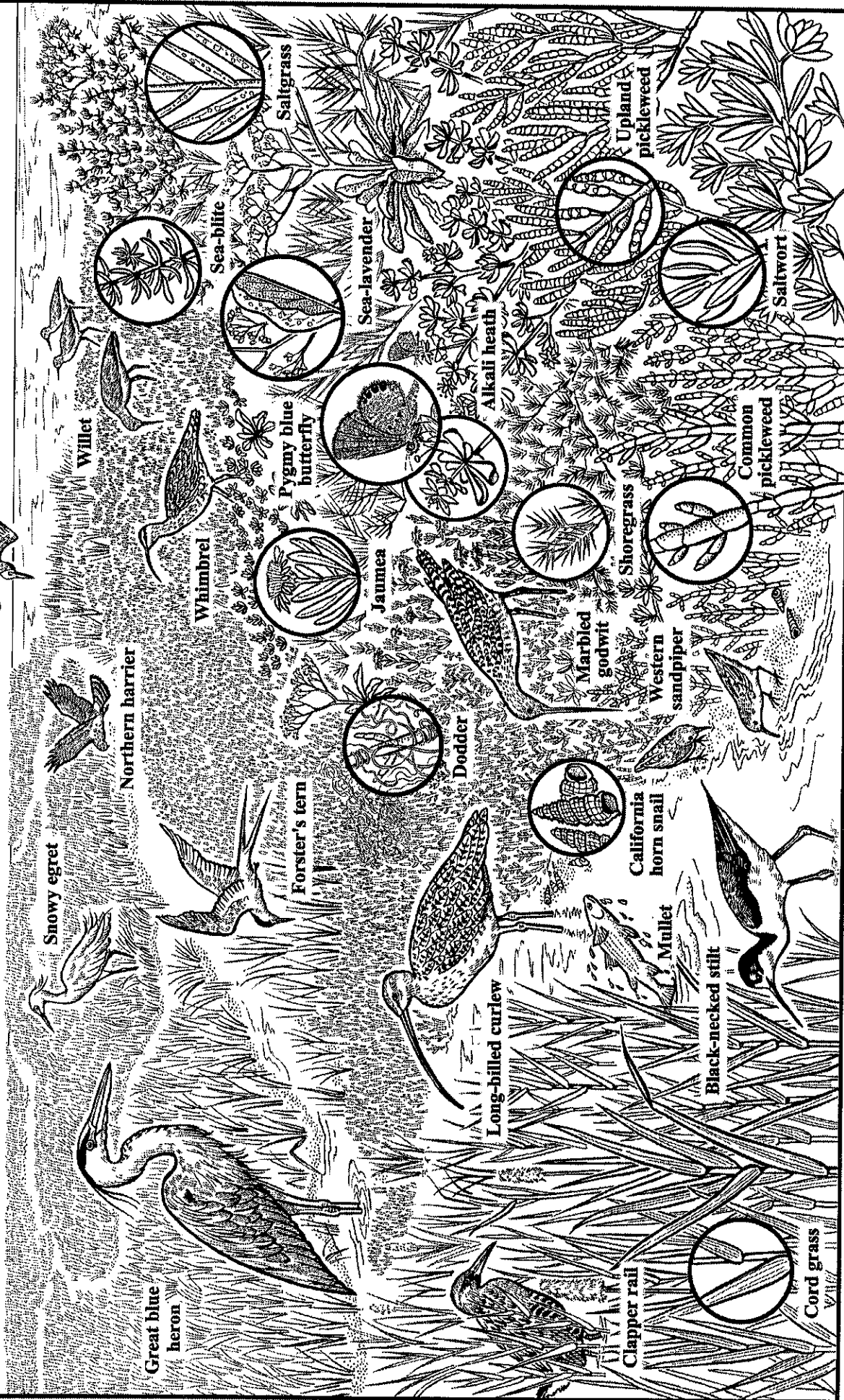
Salt Marsh



Osprey



California brown pelican



Great blue heron

Northern harrier

Snowy egret

Willet

Whimbrel

Forster's tern

Long-billed curlew

Clapper rail

Black-necked stilt

California horn snail

Mullet

Marbled godwit

Western sandpiper

Dodder

Jaumea

Pygmy blue butterfly

Sea-lavender

Sea-blite

Saltgrass

Alkali heath

Shoregrass

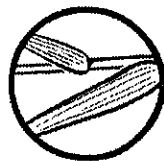
Upland pickleweed

Saltwort

Common pickleweed

Cord grass

Salt Marsh



Cord grass
Grass family
Spartina foliosa

Abundant grass grows along the lower ocean edge of marsh and along tidal channels. Blooms July - November.



Shoregrass
Grass family
Monanthochloe littoralis

Low-growing, mat-like grass, small leaves. Salt crystals on leaves. Prickly when touched.



Sea-blite
Saltbush family
Suaeda californica

Mound-like shrub; pale green branching stems with overlapping, succulent leaves. Turns red in fall.



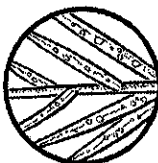
Dodder
Dodder family
Cuscuta salina

Parasitic; twining thread-like stems attached to host plant, usually pickleweed. Fleshy yellow-green to bright orange tendrils with small white flowers.



Alkali heath
Frankenia family
Frankenia salina

Small shrub with pink flowers. Look for salt crystals on folded leaves.



Saltgrass
Grass family
Distichlis spicata

Stiff grass with spikelets; excretes salt as crystals on leaf surface.



Jaumea
Sunflower family
Jaumea carnosa

Yellow, solitary flower on prostrate or ascending stems with succulent (fleshy) leaves.



Sea-lavender (marsh-rosemary)
Leadwort (Plumbago) family
Linonum californicum

Thick, leathery leaves at base of plant; many small lavender flowers at top of plant; excretes salt as crystals on leaf surface.



Pygmy blue butterfly
Butterfly and moth order
Brepheidium exilis

The smallest butterfly in California; larvae feed on salt-tolerant plants.



Common pickleweed
Saltbush family
Salicornia virginica

Succulent stems look like a string of pickles, blue-green in color. Grows close to water. Plant stems are vertical, not bushy. Dies back in winter.



Saltwort
Saltwort family
Batis maritima

Low-growing and spreading succulent with yellow-green leaves, which maintain their color year-round. Grows with common pickleweed.



Upland pickleweed
Saltbush family
Salicornia subterminalis

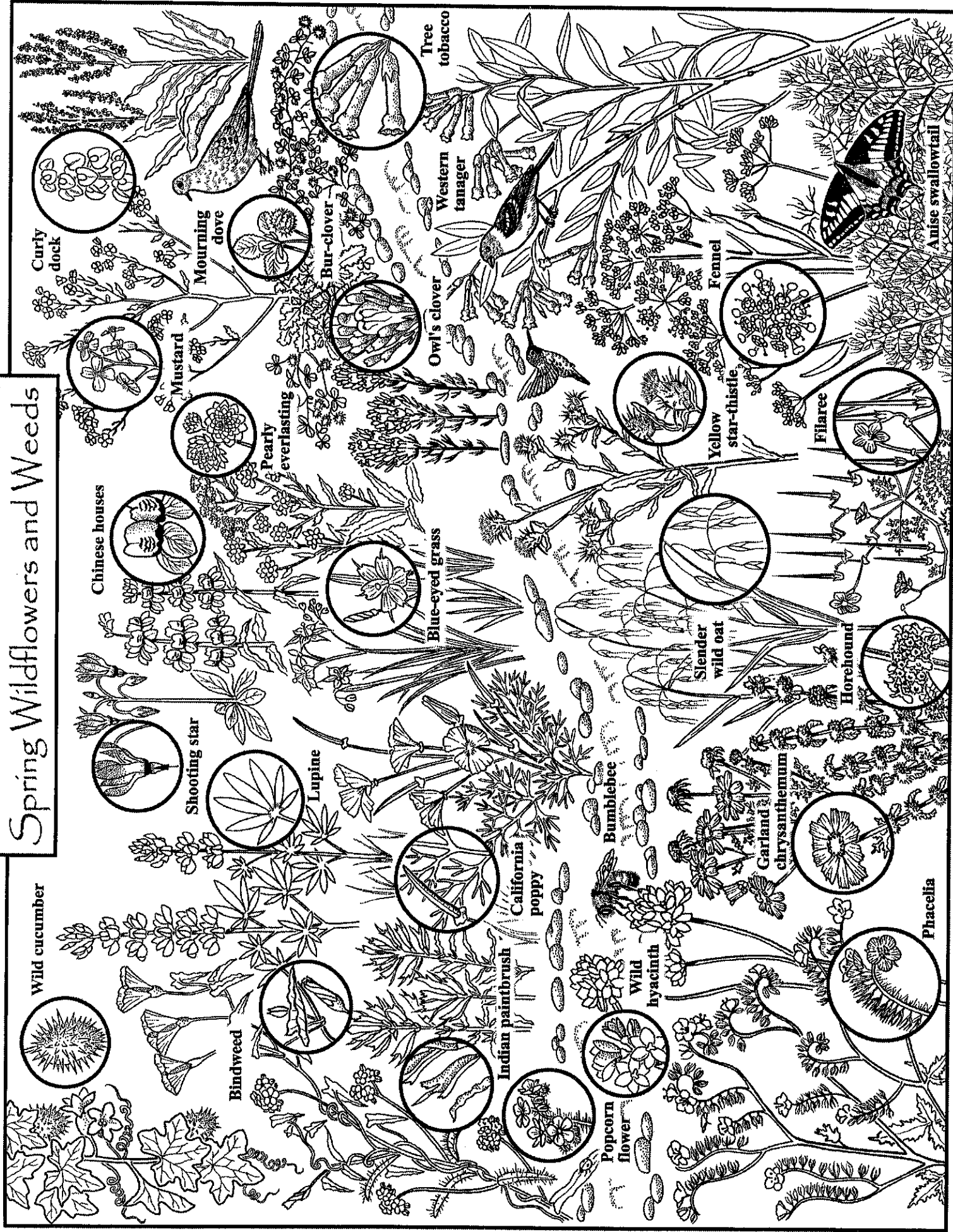
Grows along upper edge of marsh. Succulent stems and branches are dark green. Plant is bushy.



California horn snail
Cerithiidea californica

A common snail of salt marshes, found on the higher mud flats and among salt marsh plants at low tide. Look for feeding track in mud.

Spring Wildflowers and Weeds



Spring Wildflowers and Weeds

Wild cucumber

Gourd family
Morah macrocarpus

Climbing, trailing vine with tendrils; small white flowers in leaf axils. Fruit is bright green, prickly egg-shape.

Bindweed

Morning-glory family
Convolvulus sp.

Plant with twining stems to 12' long; white, single flowers in axils. Native of Eurasia.

Indian paintbrush

Snapdragon family
Castilleja affinis

Hairy leaves with purplish stems; leaves 3 to 5 lobes; red-tipped flowers in terminal spike.

California poppy

Poppy family
Eschscholzia californica

Gray-green dissected leaves; showy bright yellow or orange 4-petal flowers.

Popcorn flower

Borage family
Platigobothrys nothofolius

Hairy annual with basal leaves in rosette; stem/leaves/root contain purple dye; small white flowers.

Wild hyacinth

Lily family
Dichelostemma capitatum

Blue-violet flowers in dense, head-like cluster. Slender, smooth leaf to 16" long.

Phacelia

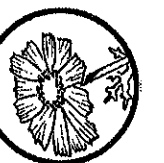
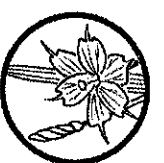
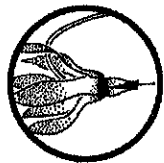
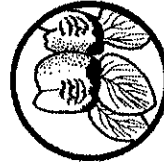
Waterleaf family
Phacelia sp.

Foliage and stems hairy; flowers generally blue.

Horehound

Mint family
Marrubium vulgare

Foliage gray-green and wrinkled; flowers in whorls around stem. Native of Europe.



Chinese houses

Snapdragon family
Collinsia heterophylla

Slightly hairy plant with greenish purple stems. Lilac or blue-violet flowers in whorls around stem.

Shooting star

Primrose family
Dodecatheon sp.

Hairy plant with basal leaves; flowers white to red-violet with yellow and maroon at base. Petal lobes folded back.

Lupine

Legume (Pea) family
Lupinus sp.

Many species; colors range from white to dark purple; palmate leaves and seed pods distinctive.

Blue-eyed grass

Iris family
Sisyrinchium bellum

Grass-like plant with blue-violet flower.

Slender wild oat

Grass family
Avena barbata

Grassy "grain" plant with numerous seeds. Native of Old World.

Garland chrysanthemum

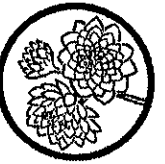
Sunflower family
Chrysanthemum coronarium

Fern-like alternate leaves; showy flowers ranging from white tinged with yellow to all yellow. Native of Europe.

Filaree

Geranium family
Erodium sp.

Low-growing plants with small pink flowers. Native of Europe.



Mustard
Mustard family
Brassica sp.

To 8' tall; lower leaves large and coarse; lemon-yellow flowers at top; fruit a pod. Native of Europe.

Curly dock
Buckwheat family
Rumex crispus

Grows to 4' high. Leaves to 12" long at base; flowers clustered at upper stem. Turns rusty brown with age. Native of Eurasia

Pearly everlasting
Sunflower family
Gnaphalium sp.

Woody base with green, slightly woolly alternate linear leaves; strong sweet smell. Dense pearly white flowers clustered at top.

Bur-clover
Legume (Pea) family
Medicago polymorpha

Spreading plant growing flat on the ground. Three-part leaf; yellow flowers; fruit has small, hooked spines. Native of Europe.

Tree tobacco
Nightshade family
Nicotiana glauca

Small tree or shrub with gray-green foliage and drooping branches; narrow, yellow tubular flowers. Native of South America.

Owl's clover
Snapdragon family
Orthocarpus purpurascens

Low, hairy plant; "flowers" in terminal spike; lavender to purple tips.

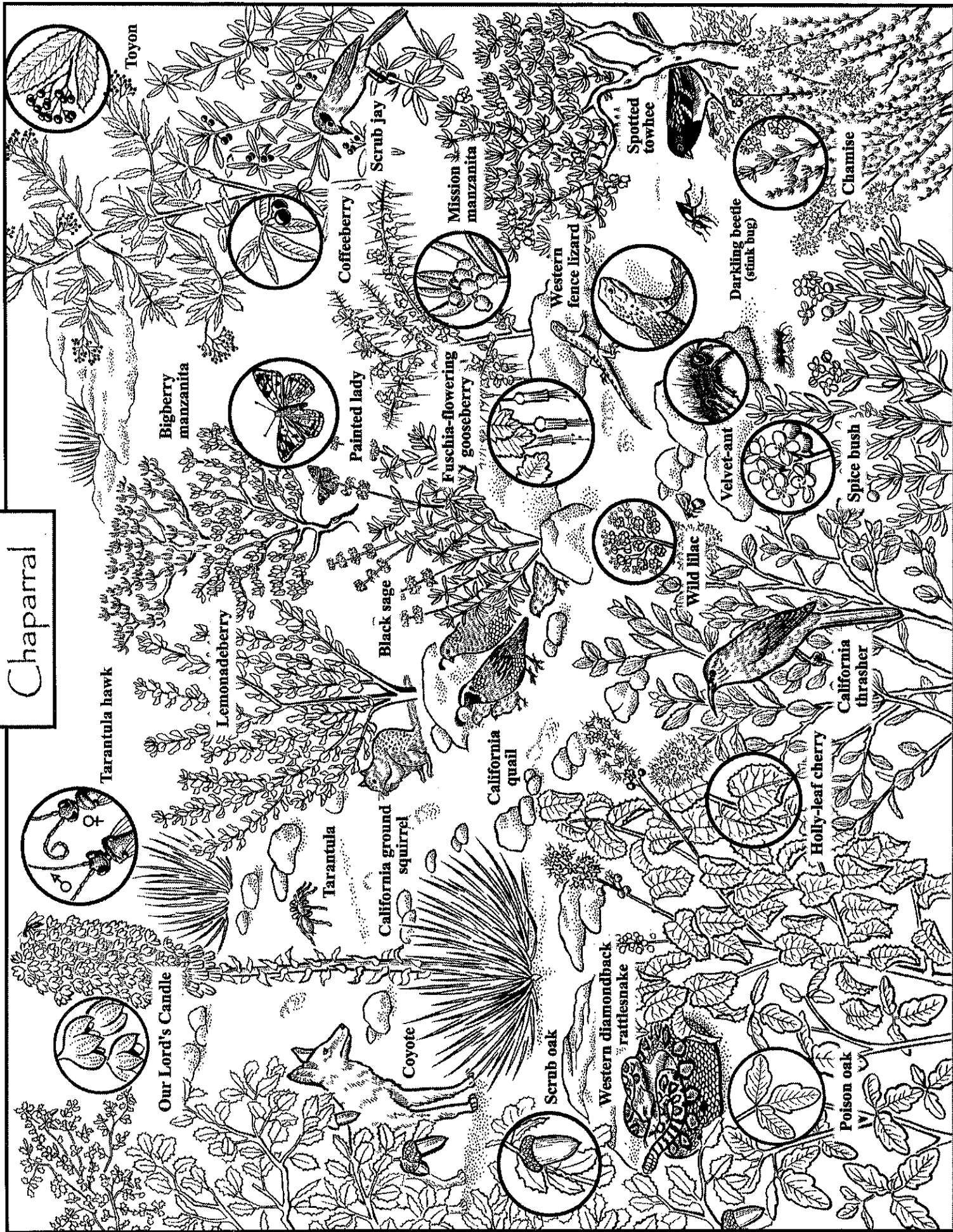
Yellow star-thistle
Sunflower family
Centaurea sp.

Usually narrow-leaved with bright yellow flower; some species more or less spiny. Native of Europe.

Fennel
Carrot family
Foeniculum vulgare

Tall plant w/soft, fern-like foliage; smells like licorice; yellow flowers. Native of Europe.

Chaparral



Chaparral



Scrub oak
Oak family
Quercus berberidifolia

Tall shrub with small, leathery, prickly leaves and thin acorns. Upper surface of leaves green and shiny.



Tarantula hawk
Wasp order
Pepsis sp.

Large black wasps with red-orange wings. Females have curling antennae; males' antennae have only a slight curve.



Toyon
Rose family
Heteromeles arbutifolia

Tree, dark green serrated leaves. Cream-colored flowers in terminal clusters; red berries.



Our Lord's Candle (Chaparral yucca)
Lily family
Yucca whipplei

Tall, asparagus-like flower stalk with stiff, sharp-pointed leaves, many creamy white flowers.



Spice bush
Citrus family
Cneoridium chamusum

Small, fragrant white flowers; opposite leaves. Evergreen shrub with linear leaves dotted with glands.



Coffeeberry
Buckthorn family
Rhamnus californica

Shrub, definite veins in leaves; bright green above, white below. Flowers small and greenish; fruit a dark berry.



Poison oak
Cashew/ Sumac family
Toxicodendron diversilobum

Leaves of three; let it be!
Leaves are shiny bright green in spring, red in fall. Naked stems in winter; has irritating oils.



Fuschia-flowering goosberry
Currant family
Ribes speciosum

Red, very prickly stems; red flowers dangling from outspread branches. Leaves palmately three-lobed.



Mission manzanita
Heath family
Xylococcus bicolor

Red smooth trunk and branches; leaves dark on top, lighter on bottom. Urn-shaped, pink flowers becoming berries.



Holly-leaf cherry
Rose family
Prunus ilicifolia

Shiny, dark green holly-like leaf with large, red fruits. Important food source for birds and other animals.



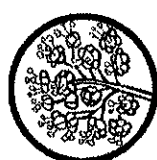
Painted lady
Butterfly and moth order
Vanessa cardui

Orange, black and white markings. Most widespread butterfly in the world; periodically migrates in large numbers northward through California.



Western fence lizard
Iguana family
Sceloporus occidentalis

Male has dark blue patches on throat and belly. Grows to 8", very common. Also called "bluebelly".



Wild lilac
Buckthorn family
Ceanothus sp.

Small flowers from white to dark blue cover these large shrubs in spring. Three-part seed.



Velvet-ant
Wasp order
Dasyneura sp.

Not an ant but a wasp; females are wingless and can deliver a powerful sting.



Chamise
Rose family
Adenostoma fasciculatum

Tiny, dark green, needle-like leaves in bundles along stem. Small, creamy white flowers.