Bird Species of Special Concern
Criteria and Ranking Scheme

As a means to both identify taxa that qualify for the Bird Species of Special Concern (BSSC) list and to set levels of priority within the list, the BSSC Technical Advisory Committee (TAC) debated at length the merits of various ranking schemes and the biological ranking criteria within them. Early on we drafted a precise definition of a BSSC in California to ensure our concept of a species of special concern would be consistent with our ranking criteria and scheme. At length, we decided on seven objective criteria to use in ranking a set of nominee taxa: population trend, range trend, population size, range size, population concentration, percentage of entire range within California (endemism), and vulnerability to threats. In concert, we cast a wide net to develop a list of nominee taxa for consideration for inclusion on the BSSC list. One or more TAC members then scored each nominated taxon (species, subspecies, or distinct population) on a scale of 0-10 for each of the seven criteria. Ultimately we weighted (doubled) the population trend, range trend, and threats scores to reflect the emphasis on population declines, range retractions, and threats in the draft definition of a BSSC. The scoring biologist based scores on all available information (e.g., Breeding Bird Survey trends, Christmas Bird Count data), including their own opinion. Once complete, the list of scores for all nominees was circulated to all TAC members for review. Although widely distributed, not all TAC members reviewed all scores, and, with few exceptions, scores represent the research or opinion of the scoring biologist. Before publication, we anticipate some scores will change based on research by authors of species accounts or external review.

Based on preliminary scores, we used two methods – one *linear*, the other *categorical* – to identify taxa for inclusion on the BSSC list as a whole and within three levels of conservation priority. We used two methods because of substantial controversy in the literature regarding the merits and short comings of these alternative approaches (e.g., Beissinger et al. 2000, Carter et al. 2000) and the belief that different methods might identify taxa of conservation concern for different but complementary reasons.

The linear scheme sums scores for all seven criteria and ranks the nominee list by total score (higher scores indicating greater concern). For the linear scheme, we assigned three levels of priority by identifying natural breaks in the list of total scores. The categorical scheme identified taxa both for inclusion on the list and within three levels of priority based solely on one or a few criteria scores. To consolidate the two resulting lists with three levels of priority, we took the higher (1, 2, or 3; highest to lowest) priority score for the two systems. Hence, a taxa with a priority score of 2 on the linear list and a 3 on the categorical list was assigned a 2 on the (preliminary) final BSSC list. As with criteria scores, we will adjust the draft final list and priority rankings based on authors' research or external review.

Although also scored, some additional taxa were added to the list solely on the basis of matching one of the definitions of a BSSC. These included (1) taxa extirpated as breeders in California and (2) taxa listed as federally, but not state, threatened or endangered. These are listed below in corresponding categories of special concern, but no species accounts will be written for them.

Finally, because of the difficulties of gauging levels of conservation concern exclusively by a set of objective criteria, we also decided that additional taxa can be assigned to the BSSC list solely by a majority vote of the TAC. Recommendations by a TAC member of a taxon to add to the list must be accompanied by substantive but brief written reasons for why it qualifies for inclusion. To date no taxa have been added to the list by this method, though we anticipate this may occur before the final document is completed.

Nominations for BSSC List

The initial set of nominees for consideration for inclusion on the current BSSC list included all taxa previously listed (Remsen 1978, CDFG 1992), all candidates to the original list (Remsen 1978), species on the Special Animal List, species recently considered candidates for listing as federally threatened or endangered, taxa nominated by contributors, species showing declines on the Breeding Bird Survey (BBS), species or subspecies endemic to California, and species that have very low breeding potential. Later we added as nominees species that had high rankings for conservation concern in any of the five Bird Conservation Regions (BCRs) that overlap with California based on National Partners in Flight (PIF) Rankings and the National Shorebird Conservation Assessment of the U.S. Shorebird Conservation Plan (Morrison et al. 2000).

Definition of a BSSC

"Bird Species of Special Concern" (BSSC) in California are those species, subspecies, or identified populations that currently satisfy one or more of the following criteria:

(1) may meet the state definition of threatened or endangered but have not formally been listed.
(2) are extirpated from the state totally or in their primary seasonal or breeding role and were never listed as state threatened or endangered.
(3) are listed as federally, but not state, threatened or endangered.
(4) are experiencing, or formerly experienced, serious population declines or range retractions that if continued, or resumed, could qualify them for state threatened or endangered status.
(5) have naturally small populations exhibiting high susceptibility to risk from any factor(s) that if realized could lead to declines that would qualify them for state threatened or endangered status.

Hence, SSC generally share one or more of the following characteristics: (1) show marked population declines or range retractions (population estimates are unavailable for the vast majority of taxa), (2) occur in small, isolated populations or in fragmented habitat and are threatened by further isolation and population reduction, (3) depend on habitat(s) that historically or recently has declined substantially in size (infers population viability of a taxon is influenced by trends in suitable habitats), (4) occur only in or adjacent to areas where habitat is being converted to land uses incompatible with the species' survival, and (5) occur largely on public lands for which current management practices are inconsistent with the species' persistence.

BSSC Scoring Criteria

We scored all nominated taxa for each of the following seven criteria. As noted above, we weighted (doubled) the scores for population trend, range trend, and threats to reflect their emphasis in the definition of a BSSC. For each taxon, we scored just the population in the season for which the taxon is of concern in California. For example, scores for the Northern Harrier apply only to state's breeding population, since it is much more numerous and of much less concern in the state in winter. Scores generally are approximations given the lack, in most cases, of precise data. Both the linear and categorical schemes use the criteria scores in different ways, described below, to identify taxa of concern.

Population Trend (PT)

This criterion estimates the change in a taxon's population size from the time of the publication of Grinnell and Miller (1944) to the present. Scores are based on quantitative or anecdotal data on the magnitude of population change or, if lacking, data on changes in the availability or condition of a taxon's habitat.

Population size:

seriously (>80%) reduced	20
greatly (>40-80%) reduced	15
moderately (>20-40%) reduced	10
slightly (>10-20%) reduced or suspected of having been reduced but trend unknown	5
stable (<10% reduced) or increasing	0

Range Trend (RT)

The range trend criterion estimates the change in the size of a taxon's breeding or wintering range in California from the time of publication of Grinnell and Miller (1944) to the present. Scores are based on gross changes to a taxon's range polygon (i.e., the outlying boundary of the range), which may be inferred by loss of habitat. The trend does *not* estimate the extent of local extirpations within the overall range.

Range size:

seriously (>80%) reduced	20
greatly (>40-80%) reduced	15
moderately (>20-40%) reduced	10
slightly (>10-20%) reduced or suspected of having been reduced but trend unknown	5
size stable (<10% reduced) or increasing	0

Population Size (PS)

This criterion estimates the number of individuals of a taxon in California during the season of concern (breeding, wintering or otherwise).

Population size:

<1000 individuals	10

≥1000 but <10,000 individuals	7.5
≥10,000 but <100,000 individuals	5
≥100,000 but <1,000,000 individuals	2.5
>1,000,000 individuals	0

Range Size (RS)

The range size criterion estimates the percentage of California occupied by a taxon, measured by the range polygon's outlying boundary. Seabirds or other waterbirds restricted solely to coastal estuarine, inshore, or pelagic waters are evaluated based on the marine environment from the California coastline west 200 miles (American Birding Association Checklist Area). All other species are evaluated based on terrestrial California, i.e., the political boundary of the state exclusive of ocean waters.

Range size (% of California occupied):

≤10%	10
>10%-50%	5
>50%	0

Percentage of Entire Range within California (EN)

This criterion measures what proportion of a taxon's North American range or population occurs within California. Taxa with a high proportion of their range or population within California are considered of greater concern than taxa with only a small proportion of their range or population in the state.

Proportion of North American range and/or population within California:

100% (endemic)	10
>80% but <100% (near-endemic)	7.5
>50%-80%	5
>20%-50%	2.5
<20%	0

Population Concentration (PC)

This criterion estimates how concentrated a taxon is within its California range. Highly concentrated taxa generally are considered more vulnerable to predation, disease, or other catastrophic events than are widely dispersed taxa.

Majority (>50%) of population concentrated at:

1-3 sites.	10
4-30 sites.	5
>30 sites.	0

Vulnerability to Threats (THR)

This criterion estimates the approximate impact of realized known threats and (secondarily) potential irregularly occurring catastrophic events (e.g., oil spills, disease events) known to periodically affect some taxa. Scores are based on projected long-term

realized impacts of single or multiple threat factors and not on speculative threats for which there is no historical basis.

In the next 20 years, habitat loss, habitat degradation, or other human-induced threats are projected to:

seriously reduce (>20%) a taxon's population in California	20
greatly reduce (>15-20%) a taxon's population in California	15
moderately reduce (>10-15%) a taxon's population in California	10
slightly reduce (>5-10%) a taxon's population in California	5
have no substantial net impact, i.e., a taxon's population should remain stable (<5% reduced) or increase in the next 20 years	0

Linear Ranking Scheme

The BSSC version is actually a *weighted* linear ranking scheme in that the PT, RT, and THR scores are doubled relative to other criteria to emphasize the importance of declines and vulnerability. Regardless, the scores for all criteria for each taxon are summed and arranged from highest to lowest. After inspection of the initial list of scored taxa, we drew an arbitrary line thereby including on the linear BSSC list all taxa with scores $\geq$37.5. We further divided the linear BSSC list into three levels of priority:

First Priority: Scores $\geq$ 60 and $\leq$ 90
Second Priority: Scores $\geq$ 47.5 and < 60
Third Priority: Scores $\geq$ 37.5 and < 47.5

A total of 71 taxa qualified for the linear list (Table 1).

Table 1 Linear Ranking Scheme List Arranged Taxonomically within Three Levels of Priority

Species Name	Total Score
First Priority (16 taxa)	
Fork-tailed storm-petrel *(Oceanodroma furcata)*	60
American white pelican *(Pelecanus erythrorhynchos)*	62.5
Wood stork *(Mycteria americana)*	60
Fulvous whistling-duck *(Dendrocygna bicolor)*	90
Harlequin duck *(Histrionicus histrionicus)*	65
Mountain plover *(Charadrius montanus)*	60
Gull-billed tern *(Sterna nilotica)*	60
Tufted puffin *(Fratercula cirrhata)*	60
Island loggerhead shrike *(Lanius ludovicianus anthonyi)*	60
Gray vireo *(Vireo vicinior)*	60
Purple martin *(Progne subis)*	60
San Diego cactus wren *(Campylorhynchus brunneicapillus sandiegensis)*	75
Sonora yellow warbler *(Dendroica petechia sonorana)*	70
San Clemente spotted towhee *(Pipilo maculatus clementae)*	72.5
Alameda song sparrow *(Melospiza melodia pusillula)*	70
San Clemente song sparrow *(Melospiza melodia clementae)*	60

Second Priority (22 taxa)

Ashy storm-petrel *(Oceanodroma homochroa)*	50
Tule greater white-fronted goose *(Anser albifrons elgasi)*	47.5
Northern harrier *(Circus cyaneus)*	52.5
Harris's hawk *(Parabuteo unicinctus)*	50
Sage grouse *(Centrocercus urophasianus)*	47.5
Mount Pinos blue grouse *(Dendragapus obscurus howardi)*	52.5
Yellow rail *(Coturnicops noveboracensis)*	50
Xantus's murrelet *(Synthliboramphus hypoleucus)*	50
Long-eared owl *(Asio otus)*	52.5
Short-eared owl *(Asio flammeus)*	57.5
Catalina Hutton's vireo *(Vireo huttoni unitti)*	55
Clark's marsh wren *(Cistothorus palustris clarkae)*	55
California Swainson's thrush *(Catharus ustulatus oedicus)*	55
Crissal thrasher *(Toxostoma crissale)*	55
San Joaquin Le Conte's thrasher *(Toxostoma lecontei macmillanorum)*	55
San Francisco common yellowthroat *(Geothlypis trichas sinuosa)*	57.5
Oregon vesper sparrow *(Pooecetes gramineus affinis*) (winter)	50
Large-billed savannah sparrow *(Passerculus sandwichensis rostratus)*	47.5
Grasshopper sparrow *(Ammodramus savannarum)*	55
Samuel's song sparrow *(Melospiza melodia samuelis)*	50
Tricolored blackbird *(Agelaius tricolor)*	55
Yellow-headed blackbird *(Xanthocephalus xanthocephalus)*	50

Third Priority (33 taxa)

American bittern *(Botaurus lentiginosus)*	42.5
Least bittern *(Ixobrychus exilis)*	45
Black brant *(Branta bernicla nigricans)*	37.5
Redhead *(Aythya americana)*	42.5
Bufflehead *(Bucephala albeola)*	45
Catalina California quail *(Callipepla californica catalinensis)*	40
Sora *(Porzana carolina)*	37.5
Lesser sandhill crane *(Grus canadensis canadensis)*	40
Snowy plover *(Charadrius alexandrinus)* (interior population)	45
Royal tern *(Sterna maxima)*	45
Elegant tern *(Sterna elegans)*	40
Black tern *(Chlidonias niger)*	37.5
Black skimmer *(Rynchops niger)*	37.5
Cassin's auklet *(Ptychoramphus aleuticus)*	40
Burrowing owl *(Athene cunicularia)*	45
California spotted owl *(Strix occidentalis occidentalis)*	37.5
Belted kingfisher *(Ceryle alcyon)*	37.5
Vermilion flycatcher *(Pyrocephalus rubinus)*	45
California horned lark *(Eremophila alpestris actia)*	40
Monterey pygmy nuthatch *(Sitta pygmaea pygmaea)*	37.5
Brown-breasted brown creeper *(Certhia americana phillipsi)*	42.5
Swainson's thrush *(Catharus ustulatus)*	45

Morcom's yellow warbler *(Dendroica petechia morcomi)*	40
Yellow-breasted chat *(Icteria virens)*	40
Summer tanager *(Piranga rubra)*	45
Santa Cruz Island rufous-crowned sparrow *(Aimophila ruficeps obscura)*	37.5
Black-chinned sparrow *(Spizella artogularis)*	40
Oregon vesper sparrow *(Pooecetes gramineus affinis)* (breeding)	45
Bryant's savannah sparrow *(Passerculus sandwichensis alaudinus)*	37.5
Modesto song sparrow *(Melospiza melodia mailliardi)*	40
Suisun song sparrow *(Melospiza melodia maxillaries)*	40
Northern cardinal *(Cardinalis cardinalis)*	40
Kern red-winged blackbird *(Agelaius phoeniceus aciculatus)*	37.5

Categorical Ranking Scheme

Like the linear scheme, the categorical scheme outlined here emphasizes PT, RT, and THR scores. Instead of adding all scores for all criteria, however, the categorical approach uses one or several scores to simultaneously develop the list and discriminate between three levels of priority. The criteria scores needed for inclusion in each of three priority levels, their verbal equivalents, and the list of the 60 taxa that qualify (Table 2) are as follows:

First Priority: PT or RT = 20 OR THR = 20 and PT or RT = 15. Population or range size seriously reduced OR population or range size greatly reduced and threats projected to seriously reduce the taxon's population in California in the next 20 years.

Second Priority: PT or RT = 15 OR THR = 15 and PT or RT = 10. Population or range size greatly reduced OR population or range size moderately reduced and threats projected to greatly reduce the taxon's population in California in the next 20 years.

Third Priority: PT or RT = 10 and PS, RS, or PC $\geq$ 7.5 OR THR = 15 and PS, RS, or PC $\geq$ 7.5. Population or range size moderately reduced and population is at high risk because of at least one vulnerability factor OR threats projected to greatly reduce a taxon's population in California in the next 20 years and the taxon's population is at high risk because of at least one vulnerability factor.

Table 2 Categorical Ranking Scheme List Arranged Taxonomically within Three Levels of Priority

First Priority (10 taxa)

Fulvous whistling-duck
Harlequin duck
Burrowing owl
Catalina Hutton's vireo *(V. h. unitti)*
San Diego cactus wren *(C. b. sandiegensis)*
Crissal thrasher
Sonora yellow warbler *(D. p. sonorana)*
San Clemente spotted towhee *(P. m. clementeae)*
Alameda song sparrow *(M. m. pusillula)*
Tricolored blackbird

Second Priority (30 taxa)

Fork-tailed storm-petrel
American white pelican
Cackling Canada goose *(Branta canadensis minima)*
Redhead
Northern harrier
Sage grouse
Mount Pinos blue grouse *(D. o. howardi)*
Yellow rail
Mountain plover
Gull-billed tern
Xantus's murrelet
Cassin's auklet
Tufted puffin
Long-eared owl
Short-eared owl
Olive-sided flycatcher *(Contopus copperi)*
Island loggerhead shrike *(L. l. anthonyi)*
Gray vireo
Purple martin
Clark's marsh wren *(C. p. clarkae)*
Swainson's thrush
Morcom's yellow warbler *(D. p. morcomi)*
San Francisco common yellowthroat *(G. t. sinuosa)*
Black-chinned sparrow *(Spizella artogularis)*
Oregon vesper sparrow *(P. g. affinis*) (winter)
Large-billed savannah sparrow *(P. s. rostratus)*
Grasshopper sparrow
Samuel's song sparrow *(M. m. samuelis)*
San Clemente song sparrow *(M. m. clementae)*
Yellow-headed blackbird

Third Priority (21 taxa)
Ashy storm-petrel
American bittern
Least bittern
Wood stork
Black brant *(B. b. nigricans)*
Bufflehead
Harris's hawk
Prairie falcon *(Falco mexicanus)*
Catalina California quail *(C. c. catalinensis)*
Sora
Lesser sandhill crane *(G. c. canadensis)*
Snowy plover (interior population)
Royal tern
Black tern
Black skimmer

Belted kingfisher
Vermilion flycatcher
San Joaquin Le Conte's thrasher *(T. l. macmillanorum)*
Lucy's warbler *(Vermivora luciae)*
Summer tanager
Oregon vesper sparrow *(P. g. affinis*) (breeding)

Preliminary Final BSSC List

The preliminary final BSSC list includes two sections: one for taxa included solely on the basis of the draft definition of a BSSC and one based on the final ranking scheme, which merges the linear and categorically ranked lists. We merged taxa on the linear and categorical lists by assigning each to one of three levels of priority using the higher of the two priority scores from the two lists. For example, if a taxa had a priority level score of 2 on the linear list and a 3 on the categorical list we assigned it a 2 on the "final" list. If a taxa was on one list and not on the other we assigned it a final priority by the single priority score originally assigned. For example, if a taxa scored a 2 on the linear list but was not on the categorical list its priority level score on the final list was also 2.

Table 3 DRAFT (preliminary) Final BSSC List Arranged Taxonomically within Three Subsections, Including Three Priority Levels of Ranked Taxa

Taxa Assigned to the BSSC List Based Solely on the BSSC Definition

Taxa Extirpated from the State Totally or in their Primary Seasonal or Breeding Role (5 taxa)

Common loon (*Gavia immer)* (breeding)
Barrow's goldeneye *(Bucephala islandica)* (breeding)
Sharp-tailed grouse *(Tympanuchus phasianellus)* (year round)
San Clemente Bewick's wren *(Thryomanes bewickii leucophrys)* (year round)
Santa Barbara song sparrow *(Melospiza melodia graminea)* (year round)

Taxa Listed as Federally, but not State, Threatened or Endangered (5 taxa)

Snowy plover (coastal population)
Northern spotted owl *(S. o. caurina)*
San Clemente loggerhead shrike *(Lanius ludovicianus mearnsi)*
Alta California gnatcatcher *(Polioptila californica californica)*
San Clemente sage sparrow *(Amphispiza belli clementeae)*

Taxa Assigned to the BSSC List by Ranking Schemes

Species Name	Total Score	Priority Rank		
		Linear	Categorical	Final
First Priority (20 taxa)				
Fork-tailed storm-petrel	60.0	1	2	1
American white pelican	63.0	1	2	1
Wood stork	60.0	1	3	1

Fulvous whistling-duck	90.0	1	1	1
Harlequin duck	65.0	1	1	1
Mountain plover	60.0	1	2	1
Gull-billed tern	60.0	1	2	1
Tufted puffin	60.0	1	2	1
Burrowing owl	45.0	3	1	1
Island loggerhead shrike *(L. l. anthonyi)*	60.0	1	2	1
Gray vireo	60.0	1	2	1
Catalina Hutton's vireo *(V. h. unitti)*	55.0	2	1	1
Purple martin	60.0	1	2	1
San Diego cactus wren *(C. b. sandiegensis)*	75.0	1	1	1
Crissal thrasher	55.0	2	1	1
Sonora yellow warbler *(D. p. sonorana)*	70.0	1	1	1
San Clemente spotted towhee *(P. m. clementae)*	73.0	1	1	1
Alameda song sparrow *(M. m. pusillula)*	70.0	1	1	1
San Clemente song sparrow *(M. m. clementae)*	60.0	1	2	1
Tricolored blackbird	55.0	2	1	1
Second Priority (26 taxa)				
Ashy storm-petrel	50.0	2	3	2
Tule greater white-fronted goose *(A. a. elgasi)*	48.0	2	0	2
Cackling Canada goose *(B. c. minima)*	30.0	0	2	2
Redhead	43.0	3	2	2
Northern harrier	53.0	2	2	2
Harris's hawk	50.0	2	3	2
Sage grouse	48.0	2	2	2
Mount Pinos blue grouse *(D. o. howardi)*	53.0	2	2	2
Yellow rail	50.0	2	2	2
Xantus's murrelet	50.0	2	2	2
Cassin's auklet	40.0	3	2	2
Long-eared owl	53.0	2	2	2
Short-eared owl	58.0	2	2	2
Olive-sided flycatcher	30.0	0	2	2
Clark’s marsh wren *(C. p. clarkae)*	55.0	2	2	2
California Swainson's thrush *(C. u. oedicus)*	55.0	2	2	2
Swainson's thrush	45.0	3	2	2
San Joaquin Le Conte's thrasher *(T. l. macmillanorum)*	55.0	2	3	2
Morcom’s yellow warbler *(D. p. morcomi)*	40.0	3	2	2
San Francisco common yellowthroat *(G. t. sinuosa)*	58.0	2	2	2
Black-chinned sparrow	40.0	3	2	2
Oregon vesper sparrow *(P. g. affinis)* (winter)	50.0	2	2	2
Large-billed savannah sparrow *(P. s. rostratus)*	48.0	2	2	2
Grasshopper sparrow *(A. savannarum)*	55.0	2	2	2
Samuel's song sparrow *(M. m. samuelis)*	50.0	2	2	2
Yellow-headed blackbird	50.0	2	2	2
Third Priority (29 taxa)				
American bittern	43.0	3	3	3

Least bittern	45.0	3	3	3
Black brant *(B. b. nigricans)*	38.0	3	3	3
Bufflehead	45.0	3	3	3
Prairie falcon	33.0	0	3	3
Catalina California quail *(C. c. catalinensis)*	40.0	3	3	3
Sora	37.5	3	3	3
Lesser sandhill crane *(G. c. canadensis)*	40.0	3	3	3
Snowy plover (interior population)	45.0	3	3	3
Royal tern	45.0	3	3	3
Elegant tern	40.0	3	0	3
Black tern	38.0	3	3	3
Black skimmer	38.0	3	3	3
California spotted owl *(S. o. occidentalis)*	38.0	3	0	3
Belted kingfisher	38.0	3	3	3
Vermilion flycatcher	45.0	3	3	3
California horned lark *(E. a. actia)*	40.0	3	0	3
Monterey pygmy nuthatch *(S. p. pygmaea)*	38.0	3	0	3
Brown-breasted brown creeper *(C. a. phillipsi)*	43.0	3	0	3
Lucy's warbler	30.0	0	3	3
Yellow-breasted chat	40.0	3	0	3
Summer tanager	45.0	3	3	3
Santa Cruz Island rufous-crowned sparrow *(A. r. obscura)*	38.0	3	0	3
Oregon vesper sparrow *(P. g. affinis) (breeding)*	45.0	3	3	3
Bryant's savannah sparrow *(P. s. alaudinus)*	38.0	3	0	3
Modesto song sparrow *(M. m. mailliardi)*	40.0	3	0	3
Suisun song sparrow *(M. m. maxillaris)*	40.0	3	0	3
Northern cardinal	40.0	3	0	3
Kern red-winged blackbird *(A. p. aciculatus)*	38.0	3	0	3

Preliminary Nature of the Final List

The "final" list above is considered preliminary for several reasons:
(1) new taxa may possibly be added via the expansion of the nomination and scoring process or via recommendation and a vote of the TAC.
(2) changes to individual scores may move taxa on or off or up or down on the list. This can occur at any time leading up to publication. Scores are likely to change for a number of reasons, including:
(1) general review by the TAC
(2) updating BBS scores using the latest analysis.
(3) changes made by species account authors while justifying scores in written accounts.
(4) outside reviewer feedback.

Responsibility List

Dunn et al. (1999) used responsibility scores to indicate a high degree of stewardship responsibility. In that vein, we have begun to develop a Responsibility List

for California to highlight taxa for which the state should bear a high degree of responsibility for conservation. The draft list includes endemic, near-endemic, or semi-endemic taxa (scores of 10, 7.5, or 5 for EN criterion) regardless of their current level of conservation concern. The list is being peer reviewed and will soon be more widely circulated for additional comments. We recommend that taxa on the final Responsibility List that are not currently of high conservation concern be given serious consideration in long-term conservation planning in California.

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