

Environmental Law Institute Summer School 2019

Endangered Species Act

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ENVIRONMENTAL POLICY
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CENTER

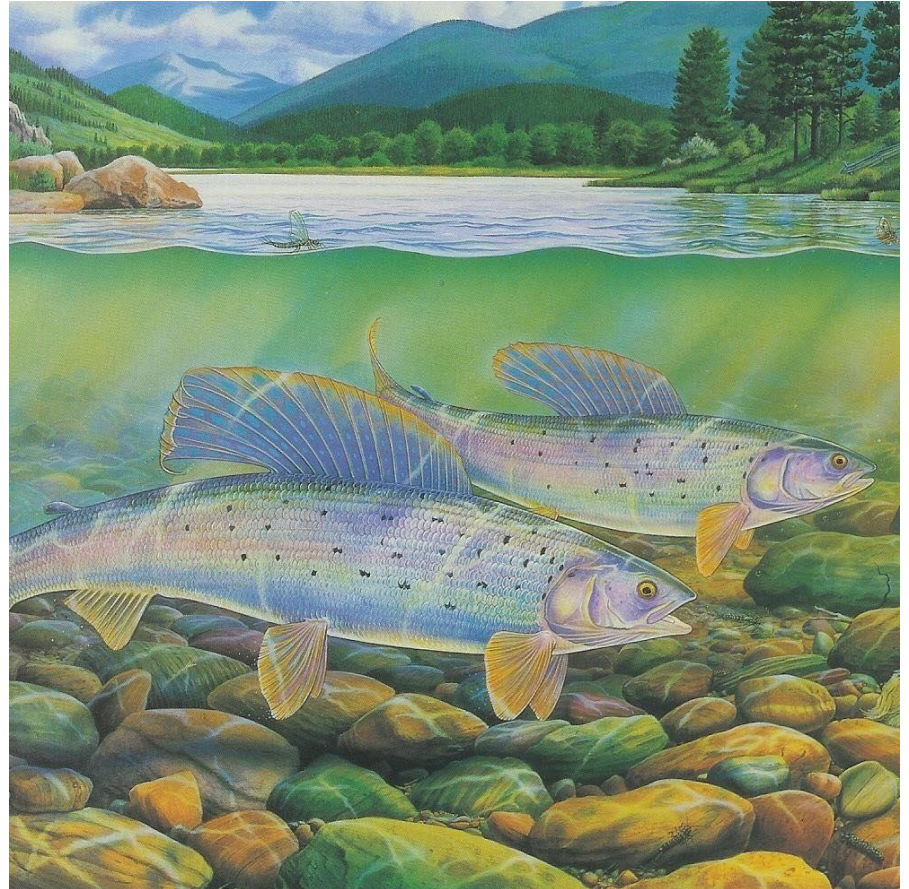
Course Overview

ESA GOALS

ESA STRUCTURE

SPECIAL TOPICS

RESOURCES



Montana Arctic Grayling Recovery Program.

ESA Goals

Carolina parakeet
Extinct 1918



John Audubon

Brown pelican
Recovered 1985



USFWS

ESA Goals

U. S. Fish and Wildlife Service

All ~2,190 terrestrial and freshwater species



NOAA Fisheries

All ~160 marine and anadromous species



All federal agencies

“All other Federal agencies shall...utilize their authorities in furtherance of the purposes of this chapter by carrying out programs for the conservation of” listed species. [16 USC § 1536(a) (1)]

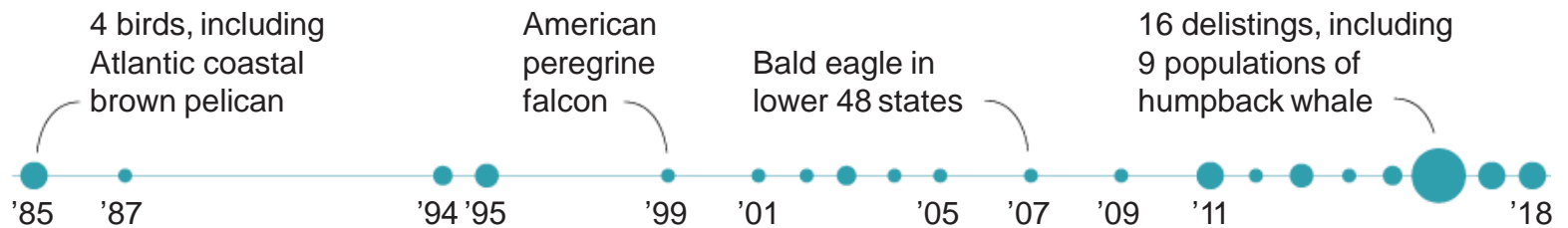
ESA Goals



11 confirmed extinctions



55 recoveries



ESA Goals

Recovery trends for 1,292 species (1990–2010)

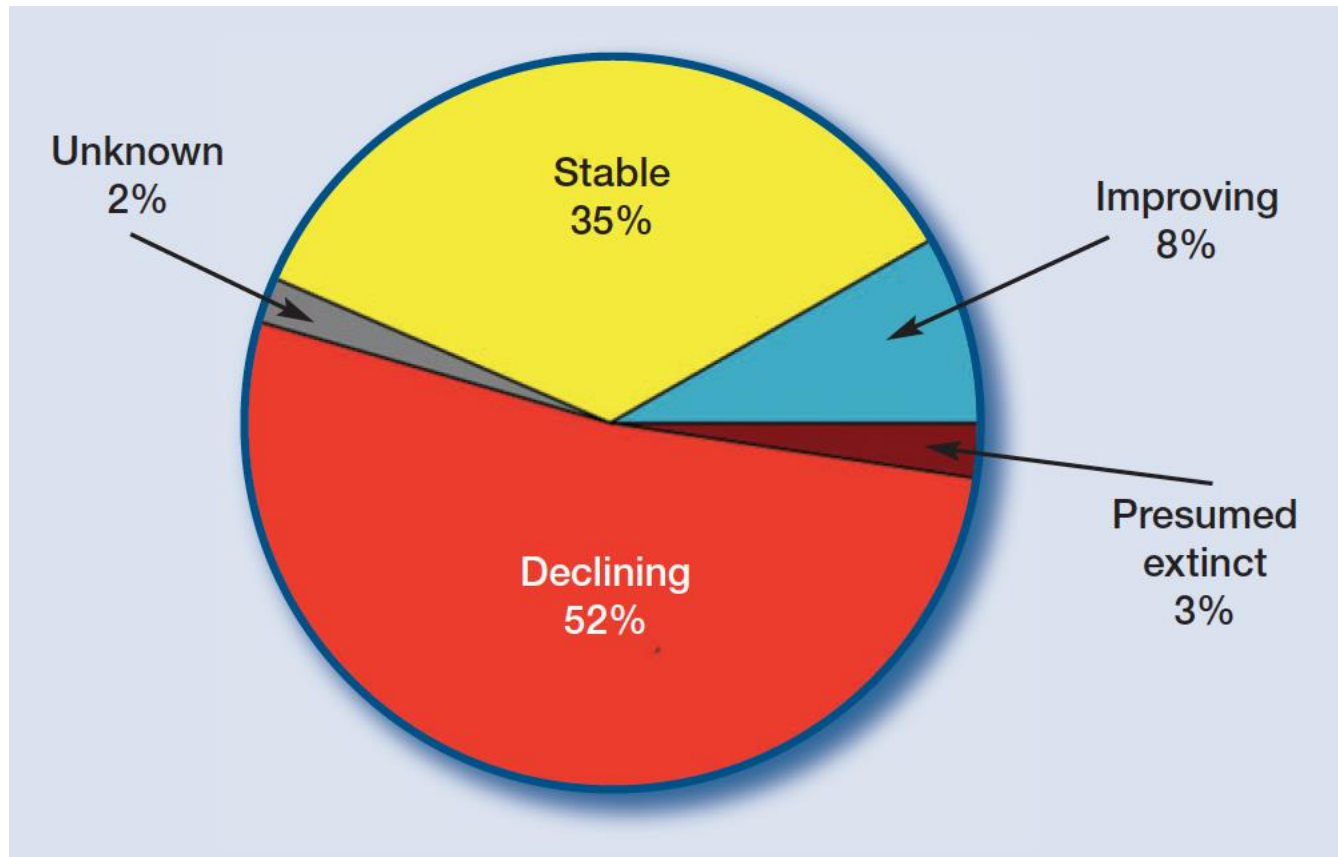
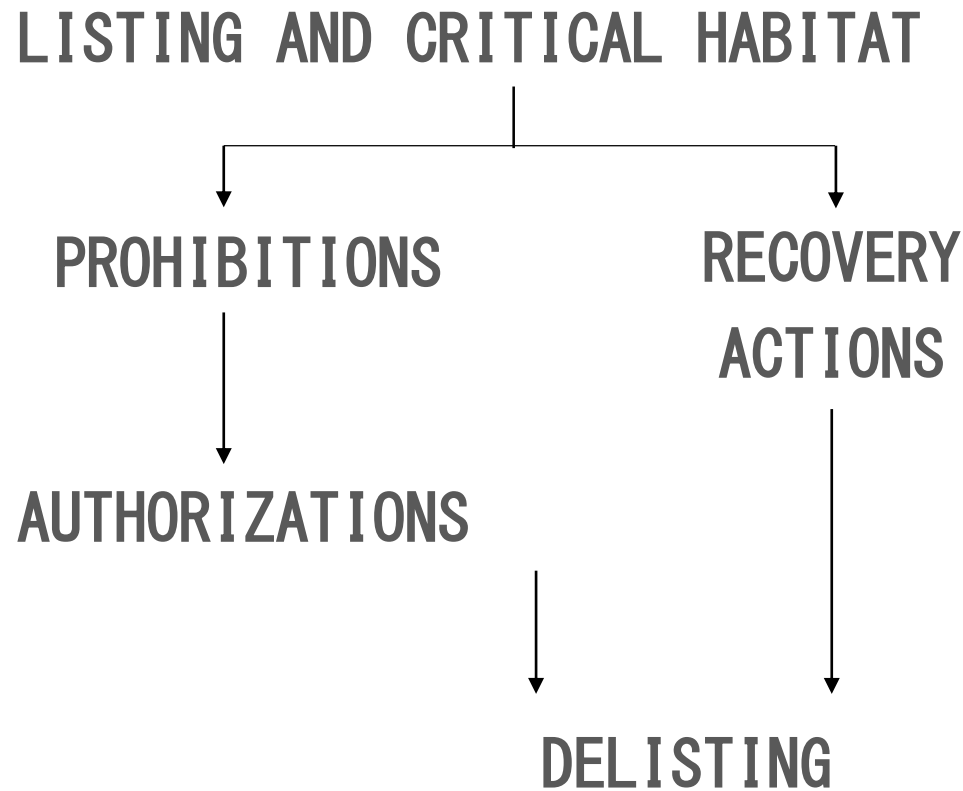


Figure from: Evans, et al. 2016. Species recovery in the United States: increasing the effectiveness of the Endangered Species Act. *Issues in Ecology* 20:1-28.

ESA Structure



Listed Species

Endangered Species

In danger of extinction [16 USC § 1532(6)]

1,875 species

Threatened Species

Likely to become endangered in **foreseeable future** [16 USC § 1532(20)]

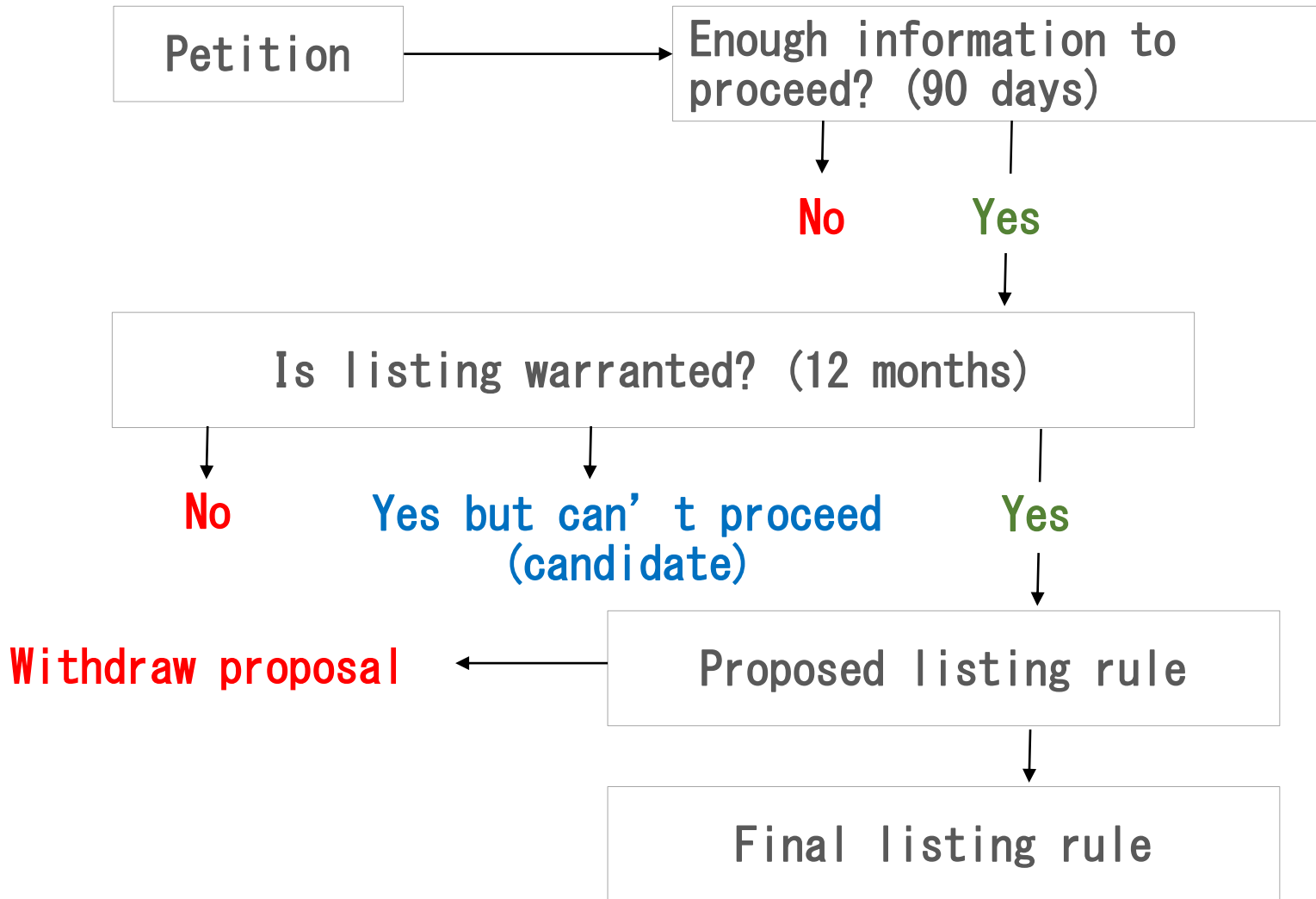
479 species

Species

Full species, subspecies, and distinct population segments of vertebrates [16 USC § 1532(16)]

Listing Process

[16 USC § 1533(b)]



For detailed process:

<https://www.fws.gov/endangered/what-we-do/listing-petition-process.html>

Listing Process

Based on Five Threat Factors

[16 USC § 1533(a) (1)]

Habitat loss

Overuse

Disease and predation

Inadequate regulations

Other factors

Illusion vs. Reality

“solely on the basis of the best scientific and commercial data available”

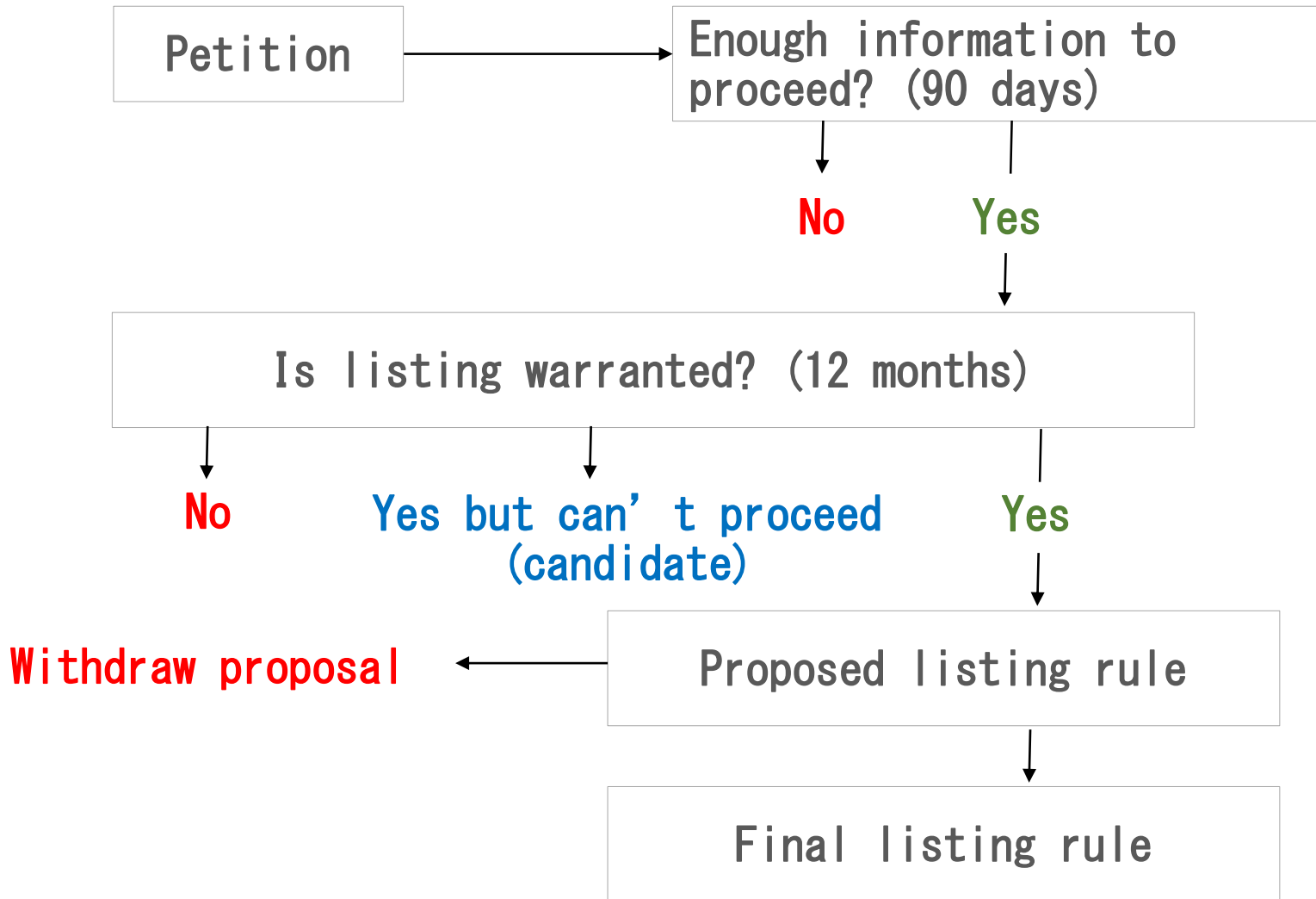
[16 USC § 1533(b) (1) (A)]

Recommended reading

Holly Doremus, *Listing Decisions Under the Endangered Species Act: Why Better Science Isn't Always Better Policy* (1997).

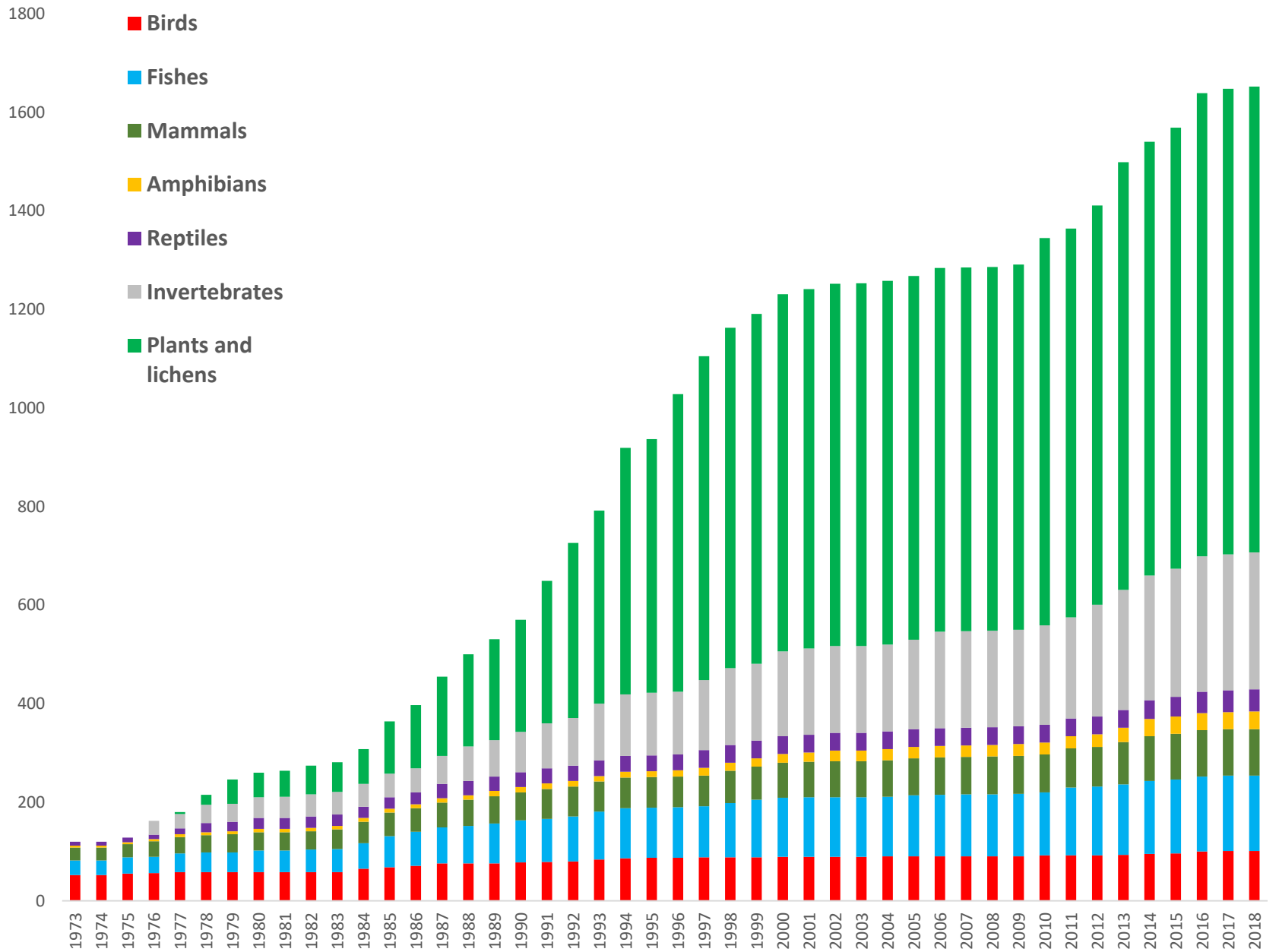
Listing Process

[16 USC § 1533(b)]

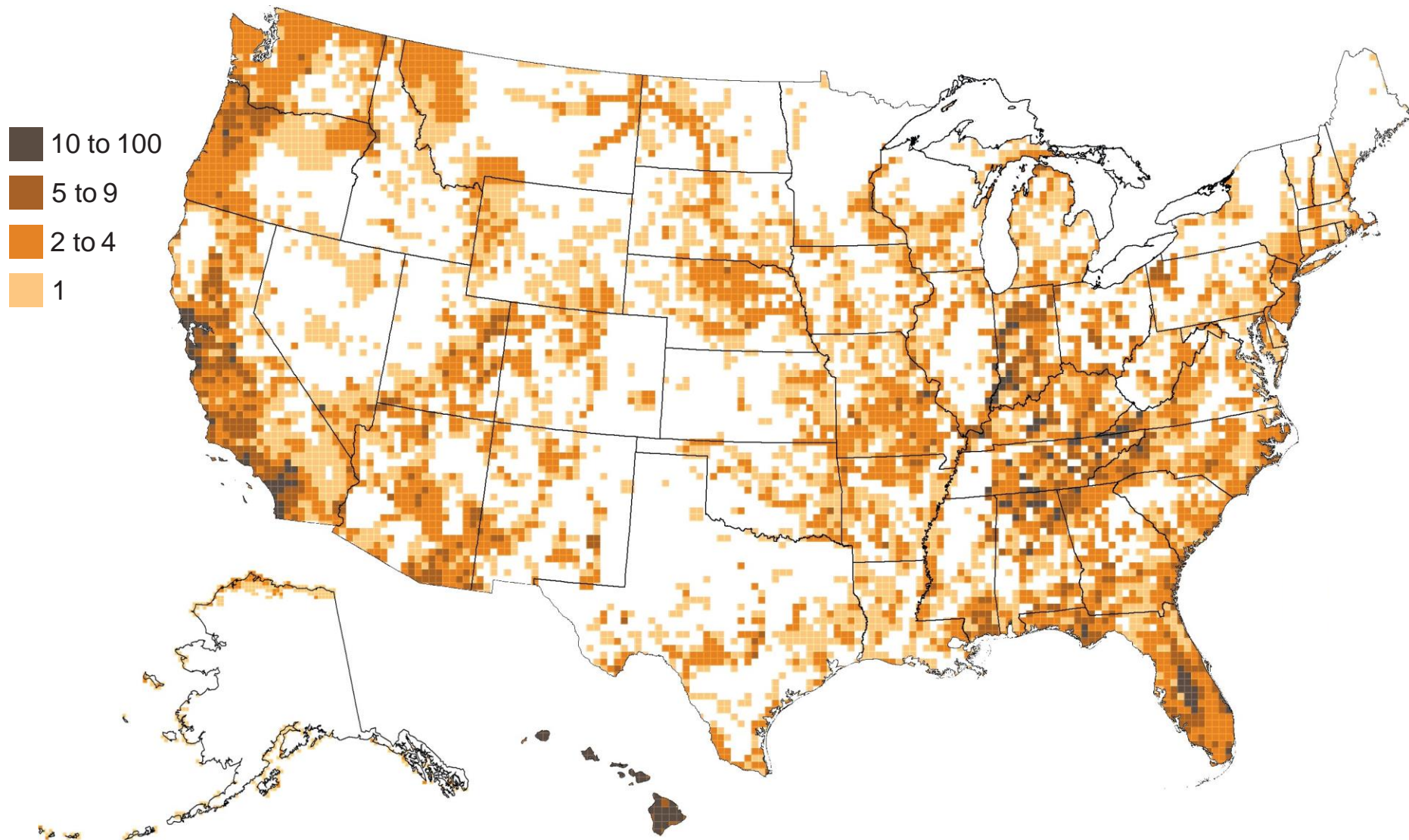


For detailed process:

<https://www.fws.gov/endangered/what-we-do/listing-petition-process.html>



Listed Species



Map developed by Curtis H. Flather (USDA) and
recreated by Patterson Clark (Politico)

Critical Habitat

Occupied Habitat

[16 USC § 1532(5) (a)]

- Physical / biological features essential for conservation
- May require special management considerations or protection

Unoccupied Habitat

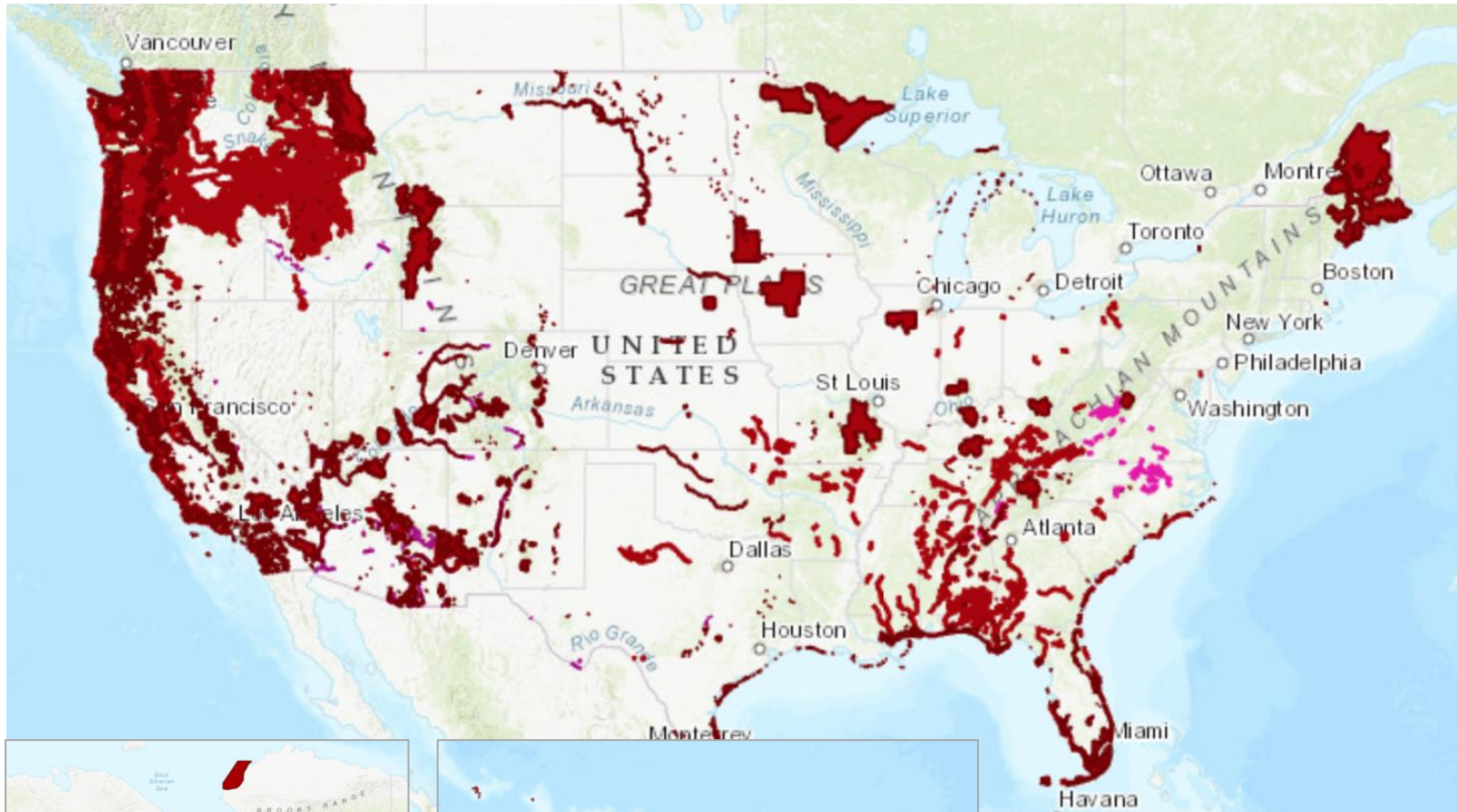
- Essential for conservation

Exceptions

[16 USC § 1533(b) (2), (a) (3) (A), (b) (6) (C) (ii)]

- Impacts analysis - section 4(b) (2)
- Not prudent - increase threats or no benefit
- Not determinable - delay if not enough data

Critical Habitat



USFWS Critical Habitat Mapper

Prohibitions

Section 9 [16 USC § 1538(a) (1)]

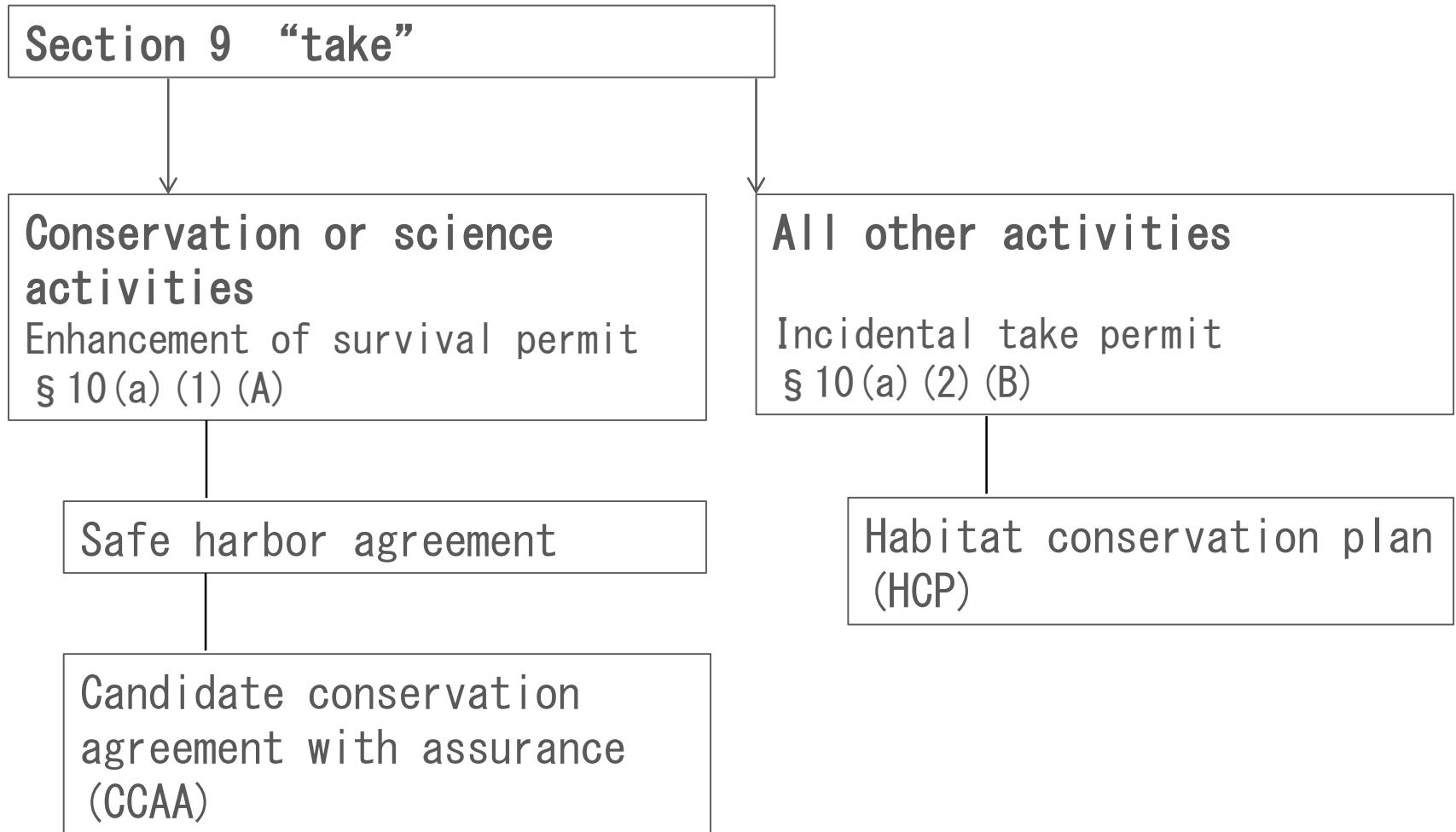
- Imports and exports
- Interstate commerce
- “Take” - harass, harm, hunt, shoot, wound, kill, trap, capture, or collect. Or attempt.
 - “Harm” includes habitat modification where it “actually kills or injures wildlife.” [50 CFR § 17.3]
 - Plants - limited to malicious damage and violation of state laws [16 USC § 1538(a) (2) (B)]
- Default protections only for endangered species. Threatened species protected through 4(d) rules.

[16 USC § 1533(d)]


Prohibitions

Take	Jeopardy / Adverse Modification
Section 9	Section 7
Covers everyone	Covers federal agencies only
Broadly defined	Limited to jeopardy & ad. mod.
Not habitat alone	Critical habitat protected
Individuals	Species
Animals only	Animals and plants

Authorizations: Section 9




Authorizations: HCPs



FINAL
CITY OF SAN DIEGO VERNAL POOL
HABITAT CONSERVATION PLAN

October 2017

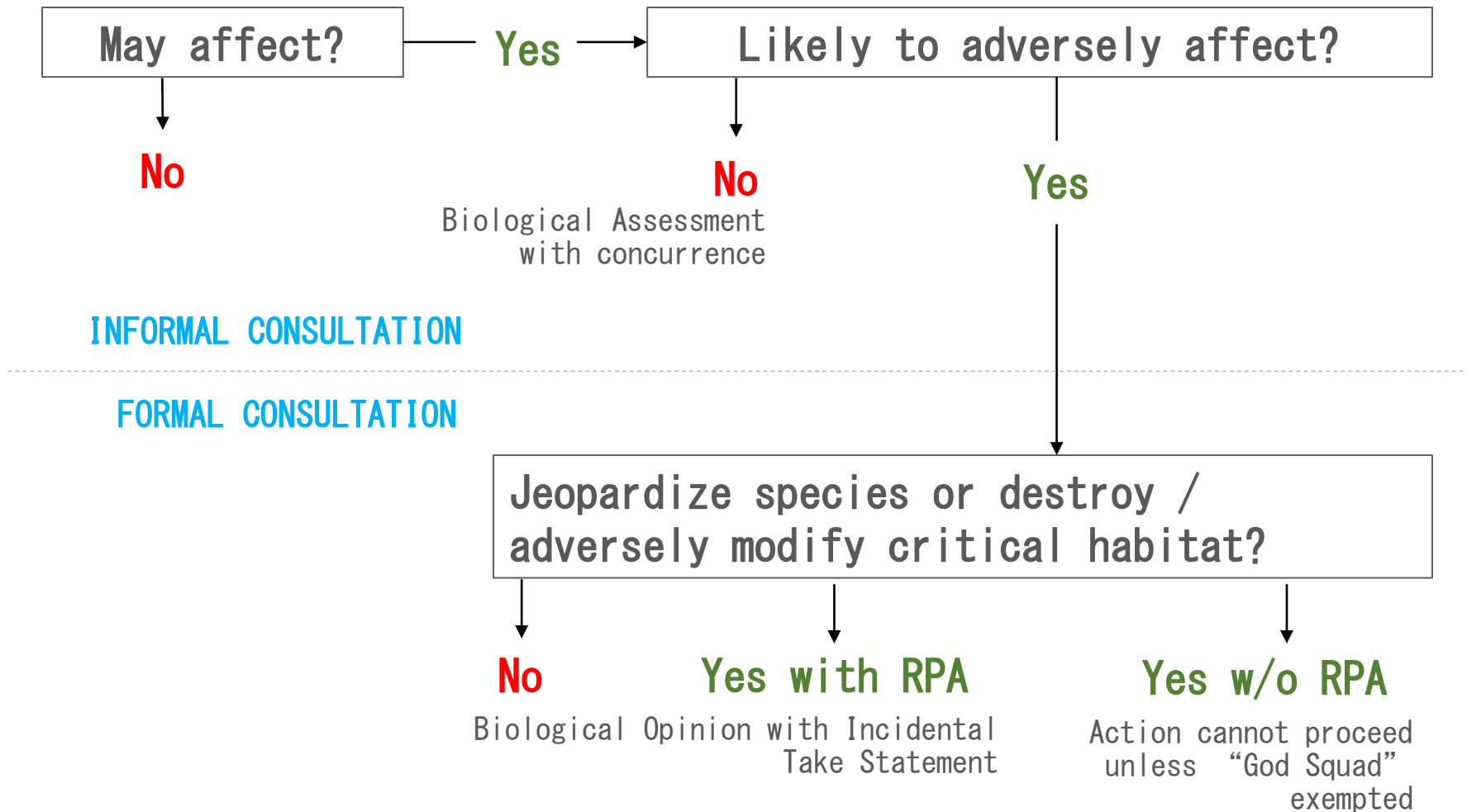
City of San Diego
Planning Department
1010 Second Avenue, Suite 1200, MS 413
San Diego, California 92101



Authorizations: Section 7



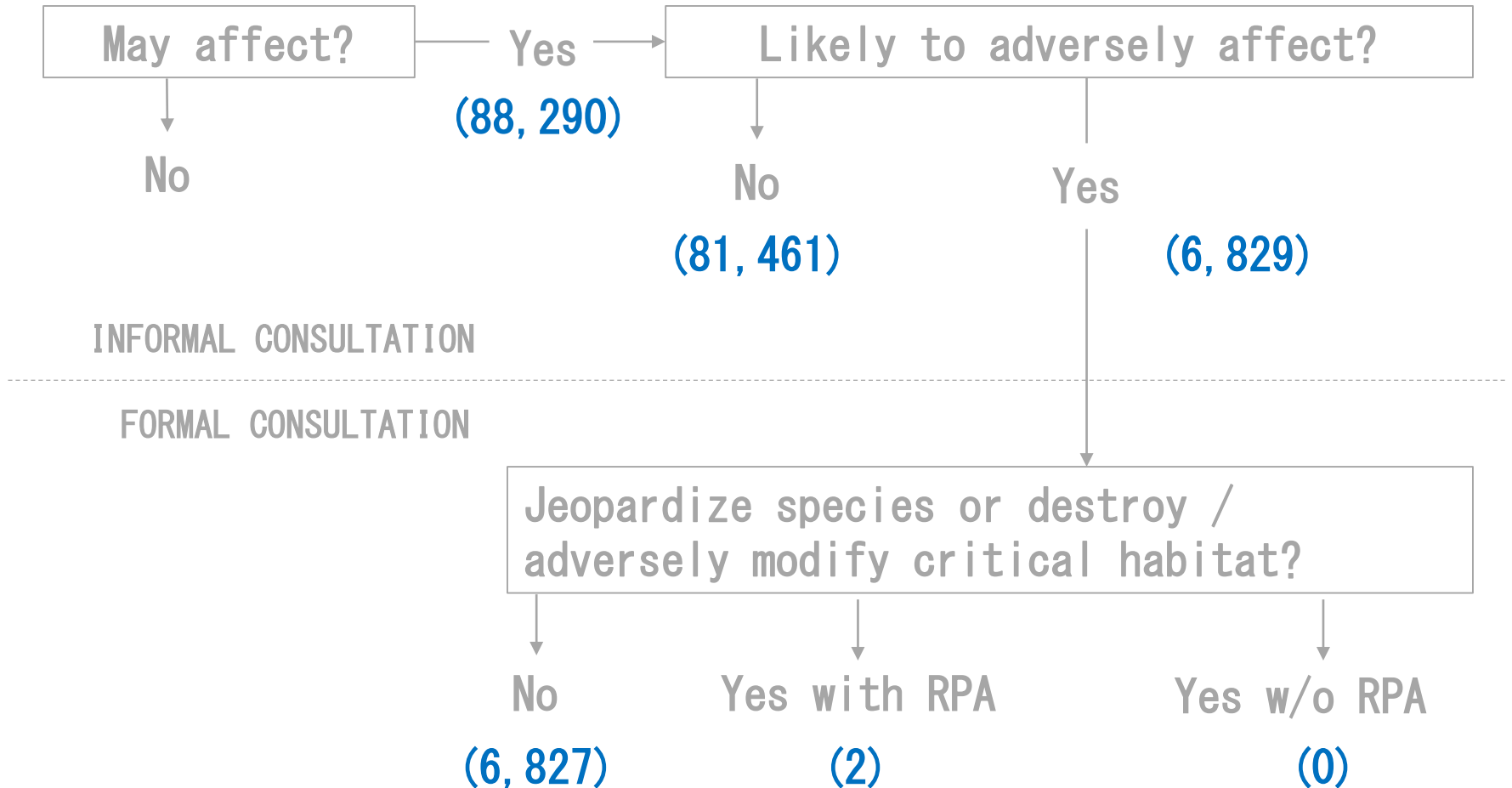
Authorizations: Section 7



For detailed process, see figures 3-1 and 4-1:

https://www.fws.gov/endangered/esa-library/pdf/esa_section7_handbook.pdf

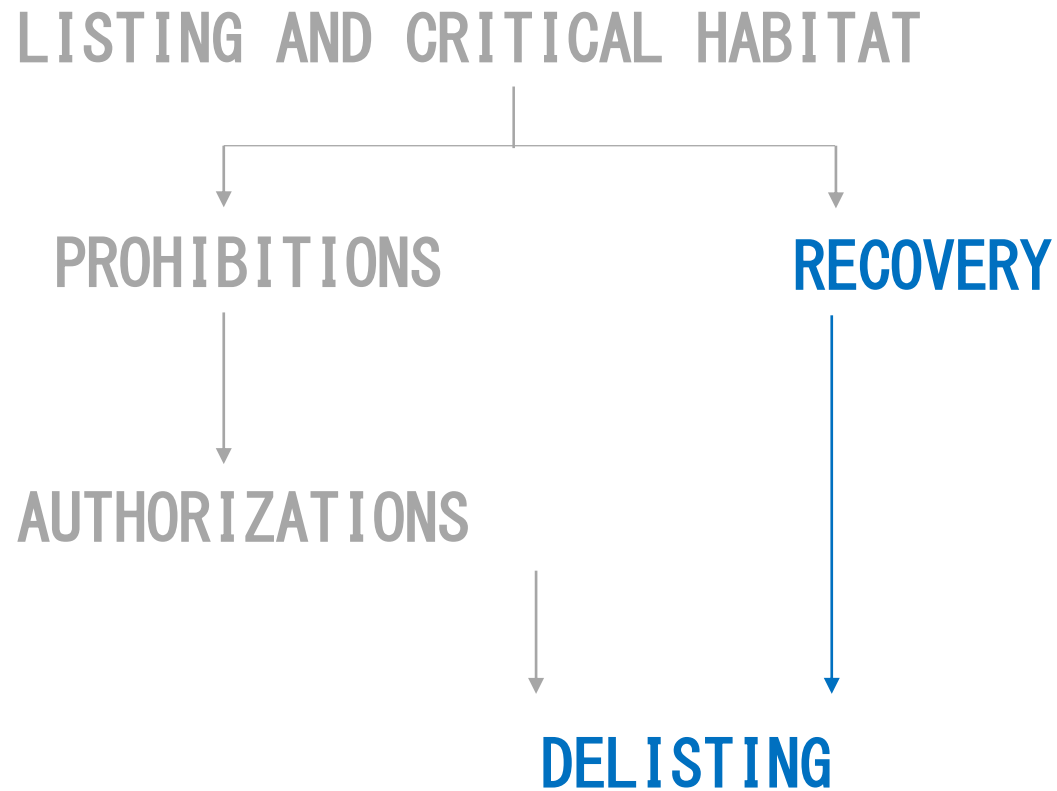
Authorizations: Section 7



For detailed process, see figures 3-1 and 4-1:

https://www.fws.gov/endangered/esa-library/pdf/esa_section7_handbook.pdf

ESA Structure



Recovery

Duty to develop and implement recovery plans

Unless plan won't promote recovery

[16 USC § 1533(f) (1)]

U.S. Fish & Wildlife Service

Recovery Plan for Laguna Mountains Skipper (*Pyrgus ruralis lagunae*)



Mendenhall Valley (photo courtesy of Alison Anderson, Service), Laguna Mountains skipper (photo courtesy of Tom Mendenhall).

TABLE OF CONTENTS

Disclaimer	iii
Acknowledgements	iv
EXECUTIVE SUMMARY	v
LIST OF TABLES	ix
LIST OF FIGURES	ix
I. BACKGROUND	I-1
A. Species Description and Taxonomy.....	I-1
B. Range and Distribution	I-2
C. Habitat and Ecosystem Characteristics	I-6
D. Population Ecology and Trends.....	I-9
E. Critical Habitat	I-14
F. Reasons for Listing and Current Threats.....	I-14
<i>Factor A: Present or Threatened Destruction, Modification, or Curtailment of Habitat or Range.....</i>	<i>I-15</i>
<i>Factor B: Overutilization for Commercial, Recreational, Scientific, or Educational Purposes</i>	<i>I-17</i>
<i>Factor C: Disease or Predation</i>	<i>I-17</i>
<i>Factor D: Inadequacy of Existing Regulatory Mechanisms.....</i>	<i>I-21</i>
<i>Factor E: Other Natural or Manmade Factors Affecting Its Continued Existence</i>	<i>I-21</i>
G. Conservation Efforts.....	I-23
H. Summary and Synthesis	I-25
II. RECOVERY PROGRAM	II-1
A. Recovery Strategy	II-1
B. Recovery Goal and Objectives	II-2
C. Recovery Criteria.....	II-3
III. RECOVERY ACTION NARRATIVE AND IMPLEMENTATION SCHEDULE	III-1
A. Recovery Action Narrative.....	III-1
B. Implementation Schedule.....	III-6

Contents of recovery plans

- Site-specific management actions

[16 USC § 1533(f) (1) (B)]

2.8 Ensure long-term protection of habitat on Federal, State, and private lands that are occupied by Laguna Mountains skipper.

- Objective, measurable criteria

Population studies show that a viable¹ Chucky madtom population in Little Chucky Creek and at least 1 other stream (Dunn Creek, Jackson Branch; e.g., the only known stream representing the historical range of the species) are naturally recruiting and sustainable (addresses Factors A, C, and E).

- Time and cost of recovery

Cost and Duration of Recovery: Recovery is anticipated to take at least 10 years and cost \$12,535,000. This is an estimate of when it could be demonstrated that all large, medium, and small populations met their recovery criteria. It could happen within a timeline of 10

Number of species with plans

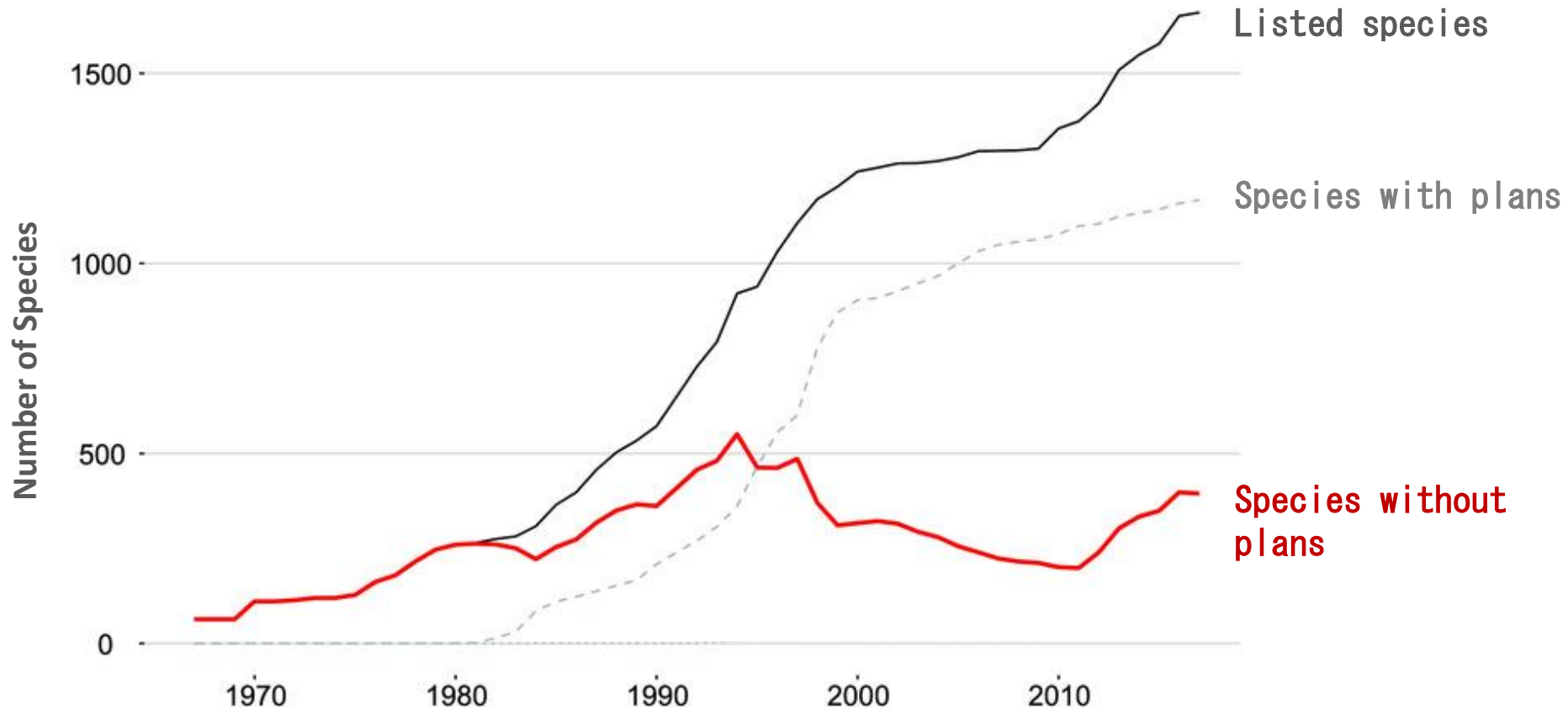


Figure from: Malcom & Li. Missing, delayed, and old: The status of ESA recovery plans, *Conservation Letters* (2018)

Age of plans

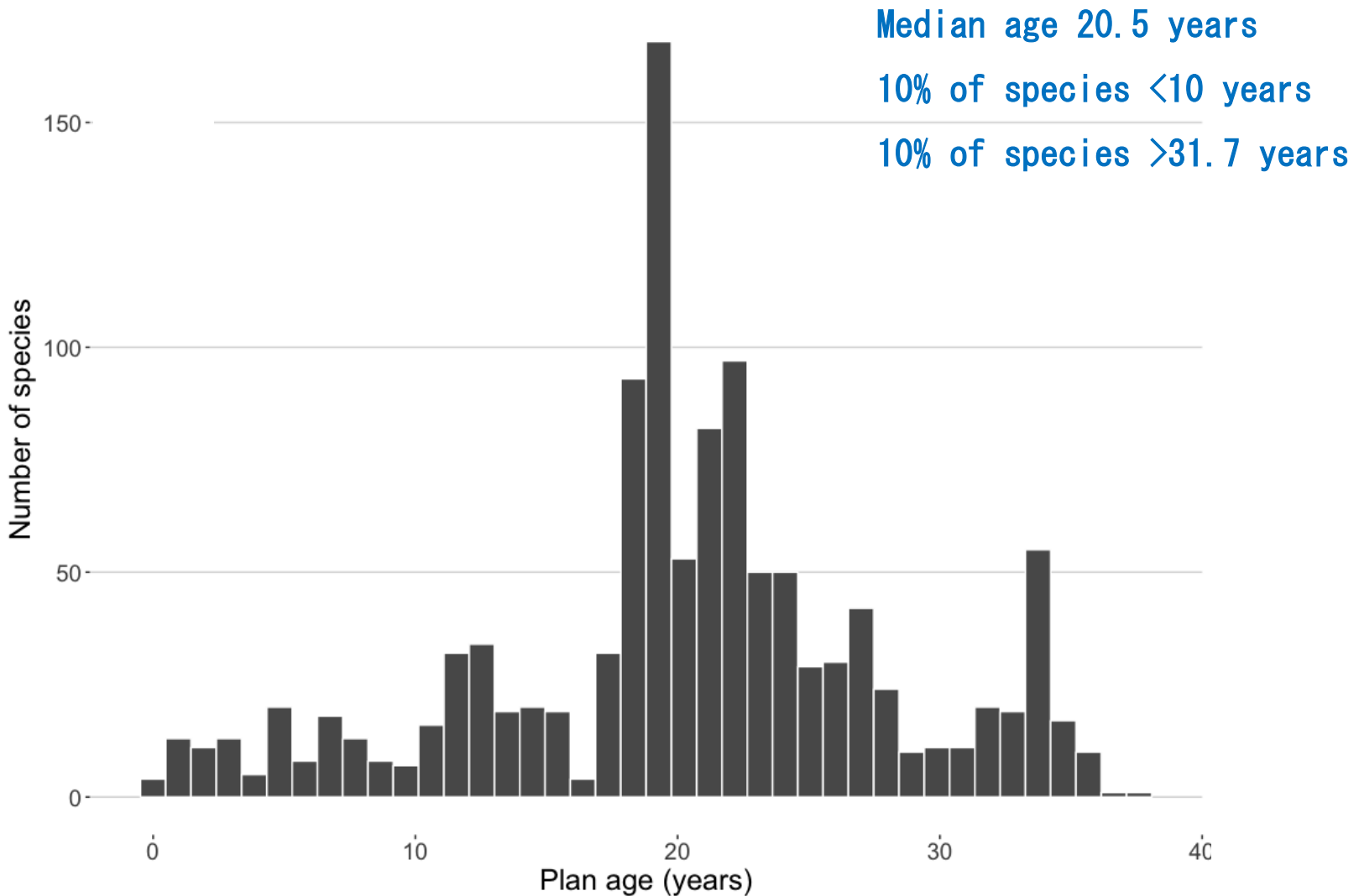


Figure and data from: Malcom & Li. Missing, delayed, and old: The status of ESA recovery plans, *Conservation Letters* (2018)

Five-year reviews

[16 USC § 1533(c) (2) (A)]

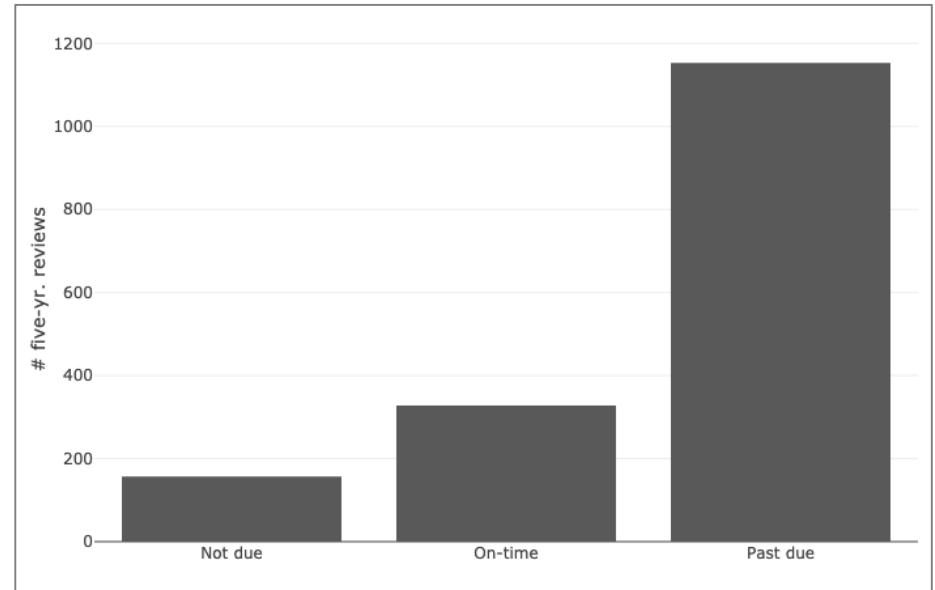
Carolina Heelsplitter
(Lasmigona decorata)

5-Year Review:
Summary and Evaluation
2019



Credit: USFWS

U.S. Fish and Wildlife Service
Southeast Region
South Carolina Ecological Services Field Office
Charleston, South Carolina



1, 153 past due (Jan. 2017)

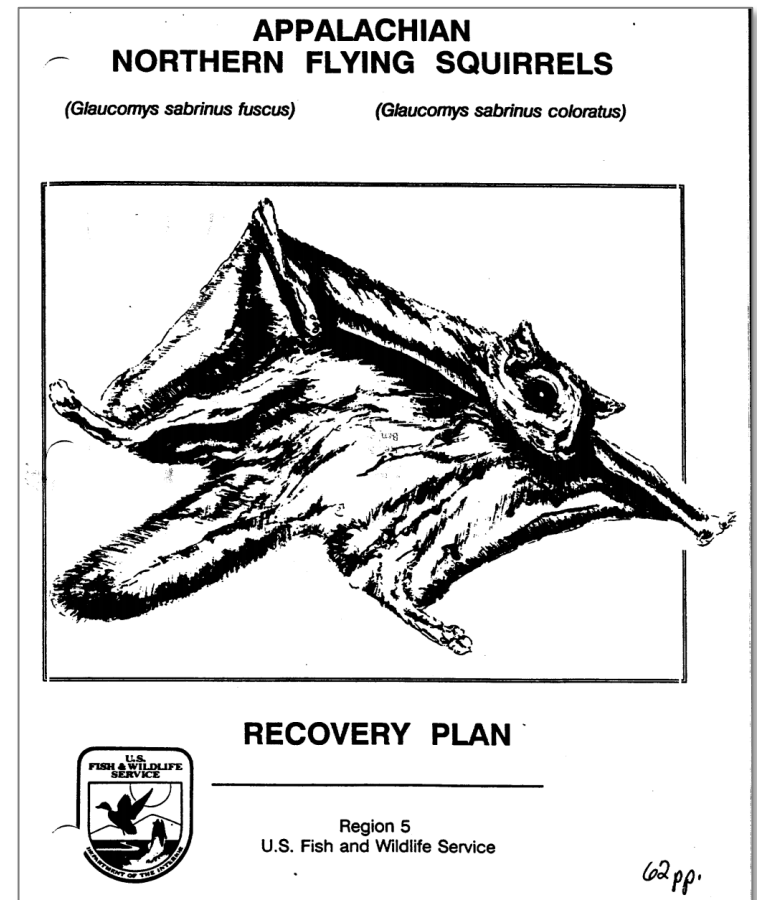
Source: J. Malcom, Center for Conservation Innovation
https://defenders-cci.org/shiny/open/fiveyr_review/

Delisting

Based on recovery criteria, but not binding

“Secretary reasonably interpreted the [Act] as not requiring that the criteria in a recovery plan be satisfied before a species may be delisted pursuant to the [five threat] factors in the Act itself.”

Friends of Blackwater v. Salazar,
691 F.3d 428 (D.C. Cir. 2012)



Delisting

State management and post-delisting monitoring

[16 USC § 1533(g)]

U.S. Fish & Wildlife Service

Post-delisting Monitoring Plan for the Bald Eagle (*Haliaeetus leucocephalus*) in the Contiguous 48 States



Table 2. Summary statistics of State-BCRs with the number of nests, plot, density per 10 km x 10 km, and standard error of the density. Density is determined from nest list nests. The larger, higher density strata will be sampled much more intensely. It is also encouraging that portions of BCRs in different States have similar plot densities. This suggests that the BCR stratification is effective.

State	Bird Conservation Region	Nests	Plots	Density	SE
Wisconsin	Boreal Hardwood Transition	1635	481	3.40	4.730
Washington	Northern Pacific Rainforest	2002	612	3.27	5.635
Virginia	Southeastern Coastal Plain	473	189	2.50	4.203
Virginia	New England/Mid-Atlantic Coast	159	75	2.12	3.251
Maryland	New England/Mid-Atlantic Coast	363	200	1.82	2.624
Iowa	Prairie Hardwood Transition	129	73	1.77	2.880
Michigan	Boreal Hardwood Transition	1654	1007	1.64	2.806
Illinois	Mississippi Alluvial Valley	6	4	1.50	1.732
Florida	Peninsular Florida	1513	1105	1.37	2.799
Kentucky	Mississippi Alluvial Valley	13	11	1.18	0.982
Minnesota	Boreal Hardwood Transition	1084	937	1.16	2.165
Maine	Atlantic Northern Forest	1055	919	1.15	2.909
Pennsylvania	New England/Mid-Atlantic Coast	2	2	1.00	0.000
Oregon	Northern Pacific Rainforest	657	851	0.77	2.364
Louisiana	Mississippi Alluvial Valley	315	410	0.77	2.333
Tennessee	Mississippi Alluvial Valley	16	21	0.76	1.513
Michigan	Eastern Tallgrass Prairie	31	46	0.67	2.023
Minnesota	Prairie Hardwood Transition	273	497	0.55	1.216
Oregon	Great Basin	529	1156	0.46	2.818
Wisconsin	Prairie Hardwood Transition	446	998	0.45	1.363
Illinois	Prairie Hardwood Transition	13	32	0.41	1.012
Washington	Northern Rockies	93	242	0.38	0.996
South Carolina	Southeastern Coastal Plain	206	543	0.38	1.040
Montana	Northern Rockies	503	1596	0.32	1.012
Florida	Southeastern Coastal Plain	167	584	0.29	0.794
New Jersey	New England/Mid-Atlantic Coast	42	147	0.29	0.672
South Dakota	Eastern Tallgrass Prairie	9	33	0.27	0.944
Nevada	Sierra Nevada	2	8	0.25	0.463

Special topics

Judicial review

- ESA citizen suit claims against (1) any person violating ESA and (2) Services on section 4 listing and critical habitat duties. [16 USC § 1540(g) (1)]
- APA claims for how Services implement ESA except section 4. [*Bennett v. Spear*, 520 US 154 (1997)]
- APA “arbitrary and capricious” standard of review. [5 USC § 706]

Conserving non-listed species

- Candidate conservation agreements



Special topics

Extensive revisions to ESA rules

Listing, 4(d) rules, critical habitat, section 7

<https://www.fws.gov/endangered/improving ESA/regulation-revisions.html>

Legislation

Senator Barrasso (R-WY) draft bill

<https://www.eenews.net/stories/1060087505>

Resources

- FWS ESA document library

www.fws.gov/endangered/esa-library/

- NMFS ESA regulations and policies

<https://www.fisheries.noaa.gov/topic/laws-policies#endangered-species-act>

- Current species lists

<https://ecos.fws.gov/ecp/species-reports>

- ESA legislative history

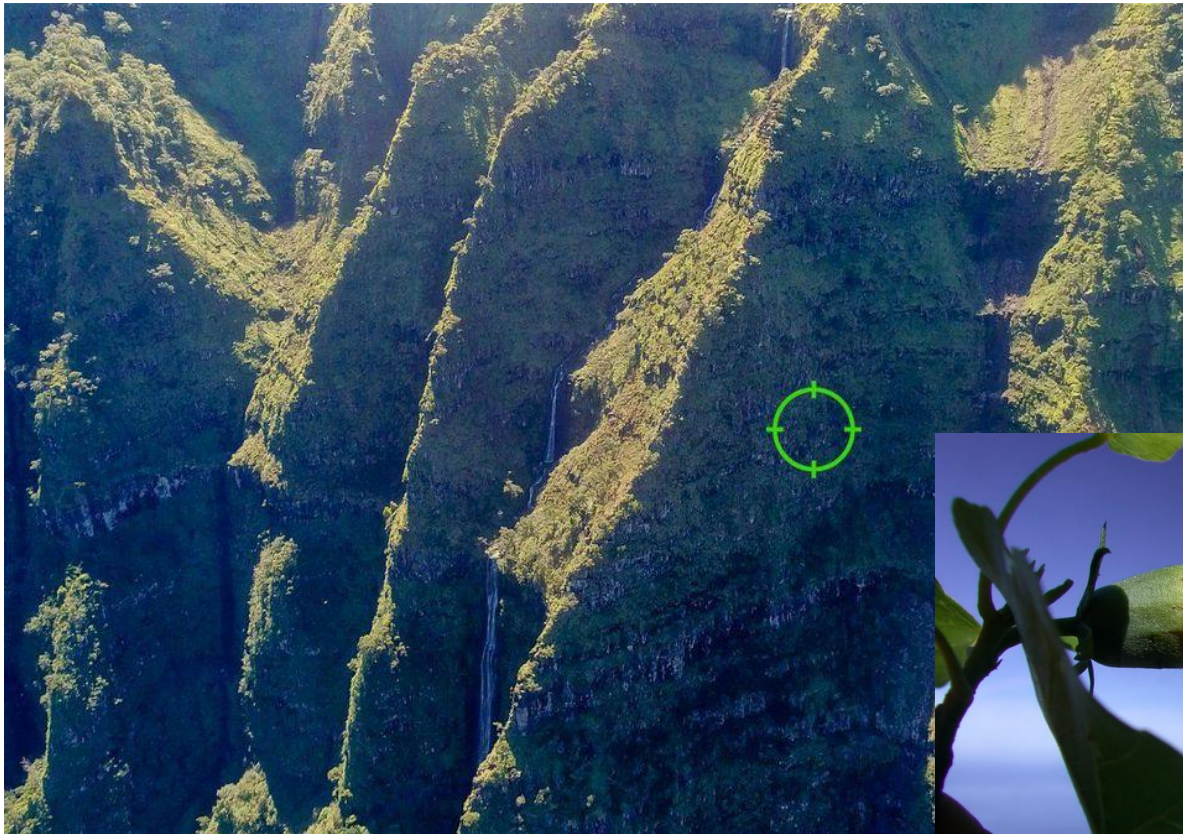
https://nctc.fws.gov/courses/csp/csp3116/resources/ESA_Section_7_Legislative_History/contents.html

- GAO reports on ESA

<https://www.gao.gov/search?q=endangered+species&Submit=Search>

- Book: Endangered Species Act: Law, Policy, and Perspectives

<https://www.americanbar.org/products/inv/book/215069/>



National Tropical Botanical Garden



Hibiscadelphus woodii
2016, Declared extinct
2019, Rediscovered using drone



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