

Federal Docket No. FWS-R2-ES-2016-0133

90-DAY FINDING ON A PETITION TO LIST THE LESSER PRAIRIE CHICKEN (*Tympanuchus pallidicinctus*) AND THREE DISTICT POPULATION SEGMENTS UNDER THE U. S. ENDANGERED SPECIES ACT AND EMERGENCY LISTING PETITION FOR THE SHINNERY OAK PRAIRIE AND SAND SAGE PRAIRIE DISTINCT POPULATION SEGMENTS

Background

Section 4(b)(3)(A) of the Endangered Species Act (Act) requires that we make a finding on whether a petition to list, delist, or reclassify a species presents substantial scientific or commercial information indicating that the petitioned action may be warranted. Our standard for substantial scientific or commercial information within the Code of Federal Regulations (CFR) with regard to a 90-day petition finding is “that amount of information that would lead a reasonable person to believe that the measure proposed in the petition may be warranted” (50 CFR 424.14(b)).

Petition History

On September 8, 2016, we received a petition from WildEarth Guardians, Defenders of Wildlife, and Center for Biological Diversity. The petition requested: (1) that the lesser prairie-chicken be listed as endangered throughout its range, (2) that three distinct population segments of the lesser prairie-chicken be listed, (3) that two distinct population segments be emergency listed as endangered, and (4) that critical habitat to be concurrently designated for this species under the Act. The petition clearly identified itself as a listing petition and included the identification information for the petitioner, as required by 50 CFR 424.14(a). Because the Act does not provide for petitions to emergency list, we are considering it as a petition to list the lesser prairie-chicken. However, we did consider the immediacy of possible species threats and whether emergency listing may be necessary. We reviewed the information presented in the petition and did not find that the species warranted an emergency listing. This finding addresses the petition.

Evaluation of a Petition to Add the Lesser Prairie-Chicken to the List of Endangered or Threatened Wildlife Under the Act

When citation lists are provided, the use of the “+” sign to string a series of citations together indicates that the information in these citations, when combined, provide substantial information indicating that the petitioned action may be warranted.

Species and Range

Does the petition identify an entity that may be eligible for listing (i.e., is the entity a species, subspecies, or DPS)?

Yes

No

Lesser Prairie-Chicken (*Tympanuchus pallidicinctus*)

Historical Range: New Mexico, Texas, Oklahoma, Kansas, and Colorado

Current Range: New Mexico, Texas, Oklahoma, Kansas, and Colorado

Information in the Petition

Factor A

1. Does the petitioner claim the entity warrants listing based on the present or threatened destruction, modification or curtailment of the species habitat or range (Factor A)?

Yes

No

- a. If the answer to 1 is yes:

Identify the activity(ies) present or threatened destruction, modification or curtailment of the species habitat or range claimed by the petitioner to be a threat such that listing may be warranted.

- Habitat fragmentation
- Oil and gas development
- Roads
- Noise disturbance
- Overhead powerlines
- Wind energy development
- Habitat conversion to cropland
- Rural development
- Livestock grazing
- Fences
- Vegetation treatments and herbicides
- Tree invasion
- Invasive weeds

- b. If the answer to 1 is yes:

Do the sources cited in the petition provide substantial information to support the claim?

Yes

No

If yes, indicate for which activity(ies) present or threatened destruction, modification or curtailment of the species habitat or range (e.g., logging, agriculture, overgrazing, etc.) the petitioner claims may be a threat and list the citations with page numbers for each purpose. If no, please indicate for which activity(ies) and explain.

Habitat fragmentation

- Fuhlendorf *et al.* 2002, p. 626
- Hagen 2003, pp. 156-157
- Grisham *et al.* 2014, p. 864
- Pitman *et al.* 2005, p. 1267
- Oyler-McCance *et al.* 2001, p. 328
- Knick *et al.* 2013, p. 1539

Oil and gas development

- Rodgers 2016, pp. 22, 27
- Van Pelt *et al.* 2013, p. 11
- Weller *et al.* 2002, p. 11
- McDonald *et al.* 2009, p. 4
- Copeland *et al.* 2013, pp. 5, 7
- Pitman *et al.* 2005, pp. 1259, 1268
- Hagen *et al.* 2011, p. 73
- Timmer 2012, pp. 72, 75
- Hagen 2010, p. 100
- Timmer *et al.* 2014, p. 147
- Hunt and Best 2004, pp. 2, 99, 122
- Plumb 2015, pp. 116, 118
- Jarnevich and Laubhan 2011, p. 930
- Hovick *et al.* 2014

Roads

- Timmer *et al.* 2014, p. 147
- Jarnevich and Laubhan 2011, p. 931
- Robel *et al.* 2004
- Hagen *et al.* 2011, p. 73
- Hunt and Best 2004, p. 99
- Timmer 2012, p. 75
- Pruett *et al.* 2009a, p. 1256
- Pitman *et al.* 2005, p. 1267
- Patten *et al.* 2005a, p. 242
- Wisdom *et al.* 2011, p. 462

Noise Disturbance

- Blickley *et al.* 2012a, p. 467
- Blickley and Patricelli 2010, p. 280

- Patricelli *et al.* 2013, p. 235
- Butler *et al.* 2010, p. 1161
- Pitman *et al.* 2005, p. 1267
- Robel *et al.* 2004
- Hunt and Best 2004, p. 142
- Blickley and Patricelli 2012, pp. 23, 32
- Blickley *et al.* 2012b, pp. 1, 6

Overhead powerlines

- Robel *et al.* 2004
- Pitman *et al.* 2005, p. 1267
- Pruett *et al.* 2009a, p. 1258
- Hagen *et al.* 2011, p. 70
- Plumb 2015, p. 117
- Timmer 2012, pp. 72, 76
- Hunt and Best 2004, p. 99
- Lautenbach 2015, p. 30
- Hagen *et al.* 2011, pp. 72,73
- Hagen *et al.* 2004, p. 74
- Wolfe *et al.* 2007, p. 102
- Hagen 2003, p. 81
- Patten *et al.* 2005a, p. 242

Wind energy development

- AWEA 2016, pp. 3, 10
- Manville 2005, pp. 4, 1058
- Hovick *et al.* 2014
- Walters *et al.* 2014, p. 6
- Haufler *et al.* 2012, p. 13
- Hagen *et al.* 2011, p. 73
- Pruett *et al.* 2009b, pp. 259, 260
- Pruett *et al.* 2009a, p. 1258
- Timmer 2012, p. 4
- Timmer *et al.* 2013, p. 745
- Jarnevich and Laubhan 2011, pp. 927, 934
- Winder *et al.* 2014a, p. 11
- Winder *et al.* 2014b, p. 399
- McNew *et al.* 2014, pp. 1094, 1095
- Winder *et al.* 2015, p. 288
- Hovick *et al.* 2015 p. 1
- Hagen *et al.* 2004, p. 79

Habitat conversion to cropland

- Haukos and Zavaleta 2016, p. 126

- Woodward *et al.* 2001, pp. 261, 267
- Robel *et al.* 2004
- Bartuszevige and Daniels 2016, p. 212
- Hagen *et al.* 2004, p. 74
- Fuhlendorf *et al.* 2002, pp. 624, 626
- Robinson 2015, p. 97
- Jarnevich and Laubhan 2011, p. 930
- Pitman *et al.* 2005, pp. 1264, 1265
- Patten *et al.* 2006, p. 10
- Wolfe *et al.* 2016, pp. 307, 308
- Applegate and Riley 1998, p. 15
- Rodgers 2016, pp. 17, 18, 21
- Toole 2005, p. 26
- Hagen *et al.* 2010, p. 30

Rural development

- USFWS 2014
- Hagen *et al.* 2011, p. 73

Livestock Grazing

- Copelin 1959, p. 159
- Patten *et al.* 2005b, p. 1277
- Melcher 2015, p. 168
- Jackson and DeArment 1963, p. 736
- Toole 2005, pp. 27-28
- Leonard 2008, pp. 29, 30
- Hunt and Best 2004, p. 74
- Riley 1978, p. 53
- Hagen *et al.* 2004, p. 78
- Bailey *et al.* 2000, p. 149

Fences

- Wolfe *et al.* 2007, p. 99
- Patten *et al.* 2005a, p. 242
- Plumb 2015, p. 69
- Christiansen 2009, pp. 1, 2
- Moss 2011, p. 255

Vegetation treatments and herbicides

- Johnson *et al.* 2004, p. 339, 342
- Copelin 1963, p. 51
- Jones and Pettit 1984, p. 488
- Johnson *et al.* 2006, p. 6
- Peterson and Boyd 1998, p. 29

- Rodgers 2016, p. 23
- Jackson and DeArment 1963, p. 736, 737

Tree invasion

- LPCI 2016, entire
- Fuhlendorf *et al.* 2002, p. 625
- Lautenbach 2015, p. 118
- Bidwell *et al.* 2002, p. 3

Invasive weeds

- Wolfe *et al.* 2016, p. 307
- Rogers 2016, p. 26

c. Provide additional comments, if any.

Factor B

2. Does the petitioner claim the entity warrants listing based on overutilization for commercial, recreational, scientific, or educational purposes (Factor B)?

Yes

No

a. If the answer to 2 is yes, overutilization for which purposes does the petitioner claim are a threat such that listing may be warranted (check all that apply):

Commercial

Recreational

Scientific

Educational

Other: Threat

b. If the answer to 2 is yes:

Do the sources cited in the petition provide substantial information to support the claim?

Yes

No

If yes, indicate for which purpose(s) the petitioner claims overutilization may be a threat and list the citations with page numbers for each purpose. If no, please indicate for which purpose(s) and explain.

c. If the answer to 2 is no:

Do sources cited in the petition provide substantial information indicating the entity may warrant listing based on factor B, even though the petitioner does not make this claim?

Yes

No

Factor C

3. Does the petitioner claim the entity warrants listing based on disease or predation (Factor C)?

- Yes
 No

a. If the answer to 3 is yes:

Which does the petitioner claim is a threat such that listing may be warranted (check all that apply)

- Disease
 Predation

b. If the answer to 3 is yes:

Do the sources cited in the petition provide substantial information to support the claim?

- Yes
 No

If yes, indicate which (disease, predation, or both) the petitioner claims may be a threat and list the citations with page numbers for each. If no, please indicate disease and/or predation and provide an explanation.

c. If the answer to 3 is no:

Do sources cited in the petition provide substantial information indicating the entity may warrant listing based on factor C, even though the petitioner does not make this

- Yes
 No

Factor D

4. Does the petitioner claim the entity warrants listing based on the inadequacy of existing regulatory mechanisms (Factor D)?

- Yes
 No

a. If the answer to 4 is yes:

Do the sources cited in the petition provide substantial information to support the claim?

- Yes
 No

If yes, list the citations with page numbers. If no, please explain.

- Spencer 2014, p. 3

- Coppedge *et al.* 2001, p. 57
- Elmore and Dahlgren 2016
- Van Pelt *et al.* 2016, p. 43, 46, 47, 82
- Taylor *et al.* 2016
- Rodgers 2016, p. 35
- USFWS 2014

b. Provide additional comments, if any.

Factor E

5. Does the petitioner claim the entity warrants listing based on other natural or manmade factors affecting its continued existence (Factor E)?

Yes

No

a. If the answer to 5 is yes:

Identify the other natural or manmade factors claimed by the petitioner to be a threat such that listing may be warranted.

- Drought
- Climate Change
- Small Isolated Populations
- Genetic Drift and Inbreeding
- Hybridization
- Competition and nest parasitism

b. If the answer to 5 is yes:

Do the sources cited in the petition provide substantial information to support the claim?

Yes

No

If yes, indicate for which other natural or manmade factors (e.g., climate change, road mortality, or small population dynamics) the petitioner claims may be a threat and list the citations with page numbers for each factor. If no, please indicate for which factor(s) and explain.

Drought

- Sala *et al.* 1988, p. 40
- Peterson 2016, p. 175
- Grisham *et al.* 2014, p. 863
- Lautenbach 2015, p. 27

Climate Change

- McLachlan *et al.* 2010, pp. 17, 29
- Grisham *et al.* 2013, pp. 7, 8
- Grisham *et al.* 2016, p. 231

Small, isolated populations

- Aldridge and Brigham 2003, p. 30
- Toepfer and Davis 2007
- DeYound and Williford 2016, p. 91

Genetic drift and inbreeding

- Johnson *et al.* 2003, p. 3339
- Westermeier *et al.* 1998, p. 1695
- Van den Bussche *et al.* 2003, p. 681
- Hagen 2003, pp. 183-184
- Oyler-McCance *et al.* 2016, pp. 6, 9, 11
- Bouzat and Johnson 2004, p. 503
- Cushman *et al.* 2010, p. 25

Hybridization

- Oyler-McCance *et al.* 2016, pp. 4, 11
- Bain and Farley 2002, pp. 684-685
- McDonald *et al.* 2013, p. 16
- Dahlgren *et al.* 2016, p. 259

Competition and nest parasitism

- Wolfe *et al.* 2016, p. 302
- Sullivan *et al.* 2000, p. 185
- Holt *et al.* 2010
- Hagen *et al.* 2002
- Sharp 1957, p. 244

c. Provide additional comments, if any.

Cumulative Effects

6. Does the petitioner claim that the threats they have identified may have synergistic or cumulative effects such that the entity may warrant listing?

Yes

No



- a. If the answer to 6 is yes:
Do the sources cited in the petition provide substantial information to support the claim?
 Yes
 No
If yes, indicate which threats the petitioner claims may have synergistic or cumulative effects and list the citations with page numbers. If no, please indicate which threats the petitioner claims may have synergistic or cumulative effects and explain.
- b. Provide additional comments, if any.

Petition Finding

Based on our review of the petition, sources cited in the petition, and information in our files, we find that the petition presents substantial scientific or commercial information indicating that the petitioned action may be warranted for the lesser prairie-chicken (*Tympanuchus pallidicinctus*) based on factors A, D, and E.

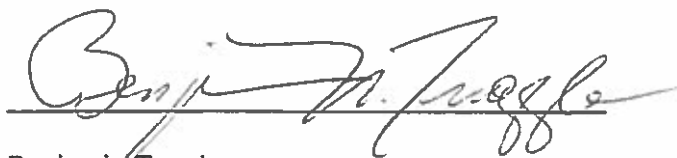
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- Blickley J.L., Word K.R., Krakauer A.H., Phillips J.L., Sells S.N., et al. 2012b. Experimental Chronic Noise Is Related to Elevated Fecal Corticosteroid Metabolites in Lekking Male Greater Sage-Grouse (*Centrocercus urophasianus*). *PLoS ONE* 7(11): e50462. doi:10.1371/journal.pone.0050462.
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