

May 10, 2017

**PETITION TO DELIST, OR IN THE ALTERNATIVE TO DOWNLIST,
THE CAPE MOUNTAIN ZEBRA (*EQUUS ZEBRA ZEBRA*)
FROM THE ENDANGERED SPECIES LIST**



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May 10, 2017

Dear Secretary Zinke:

Pursuant to 16 U.S.C. § 1533 and 50 C.F.R. § 424.14,¹ Conservation Force and the Professional Hunters Association of South Africa (“Petitioners”) respectfully submit this petition to delist the Cape mountain zebra (*Equus zebra zebra*) and remove it from the list of endangered species so it is not classified under the Endangered Species Act (“ESA”). In the alternative, Petitioners request that the Cape mountain zebra be downlisted from its current ESA status of “endangered” to “threatened.”

The Cape mountain zebra warrants delisting because it is not an endangered or threatened species, as defined by the ESA. It has recovered to the point it is not likely to become extinct, now or in the foreseeable future.² As discussed more fully below and supported by the attachments, the Cape mountain zebra has recovered from a 1950s population of fewer than 100 individuals to a thriving 2016 population that exceeds 4,800. The rate of increase has been high and consistent for decades. The zebra is being scientifically and responsibly monitored and managed. The Cape mountain zebra is more limited than aided by an endangered listing, because that listing deters the licensed, regulated hunters that will incentivize continued expansion of the zebra’s habitat. If the zebra is delisted, U.S. hunters will bring their conservation ethic and dollars to further recover this population, just as they did for the white rhinoceros and bontebok in South Africa.

RECENT ASSESSMENTS AND MANAGEMENT ACTIONS

The Cape mountain zebra has been assessed as of “Least Concern” in South Africa’s 2016 *Red List* assessment.³ It will soon likely be downlisted to “Near Threatened” on the IUCN Red List.⁴ In 2015, South Africa’s Scientific Authority conducted a non-detriment assessment of the zebra.⁵ The Scientific Authority concluded it did not have enough information to make a finding of no detriment for export of Cape mountain zebra because the species needed to be managed under a metapopulation plan and offtakes had to be informed by a population viability analysis. Neither step had been completed at the time. However, the Scientific Authority concluded:

¹ As revised Sept. 27, 2016.

² 16 U.S.C. §§ 1532(6) & (20).

³ H. Hrabar et al., A Conservation Assessment of *Equus zebra ssp. zebra*, in M.F. Child et al., *The Red List of Mammals of South Africa, Swaziland, and Lesotho* (2016), p. 1 (cited as “*RSA Red List Assessment*”).

⁴ P. Novellie, *Equus zebra*, *The IUCN Red List of Threatened Species* (2008), p. 1 (cited as “*IUCN Red List Assessment*”); H. Hrabar & G.I.H. Kerley, *Cape Mountain Zebra 2014/15 Status Report* (2015), p. 1, 2 (cited as “*CMZ 2014/15 Report*”); H. Winker et al., *Report, Population Trends and Management Strategy Tools for Cape Mountain Zebra* (2016), submitted as CoP Inf. 39, p. 22, 27 (“The total percentage change over the 31 years was +572% for the nine subpopulations combined ... The corresponding posterior distribution of the percentage change resulted in a 0% probability to support a population size reduction of more than 30%, and vice versa, provided 100% support for CMZ to be listed in the Least Concern (LC) category based on the population reduction criterion alone...”) (cited as “*PVA Report*”).

⁵ For simplicity, Petitioners sometimes abbreviate Cape Mountain Zebra as “zebra.” The full common name is used to reference any other zebra subspecies (i.e., Hartmann’s Mountain Zebra, *Equus zebra hartmannae*, or plains zebra, *Equus quagga*).

If a small hunting quota was to be introduced, it will likely increase the economic value of the Cape mountain zebra, which is anticipated to generate species and habitat conservation incentives. If the Cape mountain zebra had a higher economic value, there would be more of an incentive to conserve the subspecies and limit the introduction of alternative high-value extra-limital species that can lead to habitat deterioration. More landowners investing in the subspecies will increase its abundance and improve its conservation status within its natural distribution range ... If a small quota and a BMP [Biodiversity Management Plan] are introduced in parallel it will ... lead to a non-detriment finding for this subspecies.⁶

These steps have now been completed. As explained below under Factor D, a Biodiversity Management Plan for the species was completed in 2016 and gazetted for public comment.⁷ This plan provides for the species' management as a metapopulation and continued recovery. To ensure sustainable offtakes from licensed, regulated hunting, a population viability analysis was performed in 2016, and an offtake simulator tool was developed to model harvest levels.⁸ This research laid the groundwork for a sustainable hunting quota that will benefit the species.⁹

To facilitate the benefits of hunting by attracting foreign tourist hunters (especially U.S. hunters), South Africa proposed the downlisting of the Cape mountain zebra to Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora ("CITES") at the Seventeenth Conference of the Parties ("CoP17") in early October.¹⁰ That downlisting was agreed by a consensus of the Parties. Dr. Rosemarie Gnam, speaking on behalf of the U.S. Fish and Wildlife Service ("FWS"), intervened in support of the downlisting. As she acknowledged, the Cape mountain zebra will benefit from sustainable use and limited, regulated international trade in hunting trophies. Its continued recovery is constrained by a lack of available habitat and a low perceived value of the subspecies among private ranchers. Sustainable use and export will incentivize the protection of additional habitat and new sub-populations by increasing the zebra's value and generating management and monitoring funds.

SUBSPECIES DESCRIPTION

The Cape mountain zebra, *Equus zebra zebra*, is a subspecies of *Equus zebra* and related to Hartmann's mountain zebra, *Equus zebra hartmannae*. Cape mountain zebra are black-and-white-striped with white underparts, a black-tipped muzzle, and a dewlap that is more conspicuous than in Hartmann's mountain zebra. They have narrower and more numerous stripes on their heads and bodies than plains zebra (*Equus quagga*), and do not have "shadow stripes" on their hindquarters. Cape mountain zebra are the

⁶ Scientific Authority of South Africa, Non-Detriment Finding for *Equus zebra zebra* (Cape Mountain Zebra) (2015), p. 2-3 (cited as "NDF").

⁷ C. Birss et al., *Biodiversity Management Plan for the Cape Mountain Zebra in South Africa* (2016), submitted as CoP17 Inf. 38, and published in the Government Gazette of South Africa on Dec. 2, 2016 (cited as "BMP").

⁸ *PVA Report*.

⁹ *PVA Report*; *NDF*, p. 2-3.

¹⁰ Republic of South Africa, Proposal to Transfer the Cape Mountain Zebra from Appendix I to Appendix II, CoP17 Prop. 6 (2016), p. 1 (cited as "CITES Downlisting Proposal").

smallest of the mountain zebra, averaging between 204-372 kilograms in weight and 116-128 centimeters at the shoulder.¹¹

The zebra's preferred habitat includes mountainous areas (<2,000 meters), with permanent water sources and a diversity of grasses. Mountain zebra are grazers. Their social structure includes small "harems" with one adult stallion and one to three (but could be up to five) mares and young foals. The "harem" is usually maintained by a dominant mare. The dominant mare produces significantly more offspring than subordinate mares, and her offspring average higher survival rates. Non-breeding groups include "bachelors," but also fillies who leave their "harems" to avoid inbreeding at around two years old.¹² Cape mountain zebra can live for more than 20 years, with mares up to age 21 and stallions up to age 19 remaining fertile. However, they have a long gestation period (~12 months) and thus reproduce slowly. A "single foal [is typically] produced every 25 months (range 12-69 months)." The subspecies "adapts well within transformed landscapes."¹³

JUSTIFICATION FOR DELISTING, OR IN THE ALTERNATIVE, FOR DOWNLISTING

The Cape mountain zebra should be delisted (or at the very least, downlisted) because none of the ESA factors warrant listing (or listing as endangered). The Cape mountain zebra's population and habitat are secure (Factor A); it is hardly utilized for any purpose, much less overly utilized (Factor B); it is not at risk of extinction from disease or predation, especially as its natural predators are largely absent from its range (Factor C); and existing regulations are more than adequate to protect it (Factor D). South Africa's Scientific Authority has stated, "there [are] a lack of severe threats" to this subspecies.¹⁴ When South Africa's efforts are "taken into account"¹⁵ (Factor E – "other"), it is clear the zebra is more than sufficiently secure, without ESA listing.

A. Present or Threatened Destruction, Modification, or Curtailment of Habitat or Range Does Not Endanger or Threaten the Subspecies

The historic range of mountain zebra (all subspecies) included the mountains of the Great Escarpment in southwest Angola, Namibia, and the Northern Cape of South Africa, and the Cape Fold mountains in the Western and Eastern Cape Provinces of South Africa. Due to unsuitable habitat or other causes, the mountain zebra evolved into two subspecies: Cape mountain zebra in South Africa (*Equus zebra zebra*),

¹¹ BMP, p. 18; CITES Downlisting Proposal, p. 4; NDF, p. 5; IUCN Red List Assessment; RSA Red List Assessment, p. 1.

¹² IUCN Red List Assessment, p. 4; BMP, p. 26; NDF, p. 5-6.

¹³ NDF, p. 1, 5.

¹⁴ NDF, p. 8.

¹⁵ The ESA mandates that a foreign nation's efforts to recover the species be considered in evaluating a listing. 16 U.S.C. § 1533(b)(1)(A) ("The Secretary shall make determinations ... after conducting a review of the status of the species and after taking into account those efforts, if any, being made by any State or foreign nation, or any political subdivision of a State or foreign nation, to protect such species, whether by predator control, protection of habitat and food supply, or other conservation practices...").

and Hartmann's mountain zebra in Namibia (*Equus zebra hartmanae*).¹⁶ The Cape mountain zebra's inferred "Natural Distribution Range" ("NDR") lies wholly within South Africa.¹⁷

1. *The Cape Mountain Zebra Population Is Increasing*

The Cape mountain zebra's current range includes both national parks or reserves and private land, both within and outside the NDR. As of 2015, the range includes 19 national parks or reserves and 57 privately-owned areas.¹⁸ Approximately 69% of the Cape mountain zebra population inhabits fully protected national parks or reserves. The remainder of the population is privately owned. The zebra populations in national parks are larger, but there are more sub-populations on private land than in national parks or reserves. The Cape mountain zebra are currently spread across 76 sub-populations, three-quarters of which are on private land. The number of sub-populations has increased by 60% since 2009, "solely due to the private sector, as the number of formally protected populations has remained unchanged (19)."¹⁹

The Cape mountain zebra has recovered from a low of well under 100 individuals in the 1950s to over 2,790 individuals by 2009, and over 4,800 individuals by the end of 2015.²⁰ The zebra has maintained a 9.15% annual rate of increase since 2009.²¹ It has been "increasing steadily over a period of approximately three generations (1986-2013)."²² Eleven percent of the Cape mountain zebra sub-populations now exceed 100 individuals. Only 37% of the sub-populations have fewer than 20 individuals. The meta population has exceeded the growth target set by a 2002 IUCN Equid Specialist Group Action Plan.²³ It is classified as an "increasing" population, and has been increasing since the 1950s.²⁴

The Cape mountain zebra's habitat is "reasonably abundant within most of the natural range ... and there is no evidence of a decline in habitat quality." To the contrary, quality available habitat has increased for two reasons: (1) the expansion of protected areas with current zebra populations (+94,287

¹⁶ *BMP*, p. 1, 18; *IUCN Red List*, p. 1, 2. The Cape mountain zebra's natural range includes only South Africa; the Hartmann's mountain zebra's range is largely in Namibia, but has a "marginal extension into south-western Angola." *IUCN Red List*, p. 2.

¹⁷ Please see attached map.

¹⁸ *BMP*, p. 18-23; *CITES Downlisting Proposal*, p. 4.

¹⁹ *CMZ 2014/15 Report*, p. 6, 9.

²⁰ H. Hrabar & G.I.H. Kerley, *Conservation Goals for the Cape Mountain Zebra Equus zebra zebra – Security in Numbers*, *Oryx* 47(3) 403 (2013) (cited as "*Security in Numbers 2013*"), p. 403 ("Since the 1950s the number of Cape mountain zebras has gradually increased through active conservation programmes, with a metapopulation approach through translocations to ensure continued population growth and genetic diversity...").

²¹ *CMZ 2014/15 Report*, p. 1, 2, 5, 6, 9. Note that data on four sub-populations was not provided to the authors of the 2015 survey; therefore, the zebra population is known to exceed 4,791. See also *BMP*, p. 5, 20; *CITES Downlisting Proposal*, p. 4.

²² *RSA Red List Assessment*, p. 1.

²³ *BMP*, p. 5.

²⁴ P. Novellie, *Equus zebra ssp. Zebra*, *The IUCN Red List of Threatened Species* (2008), p. 2; *RSA Red List Assessment*, p. 1; *NDF*, p. 1; *CITES Downlisting Proposal*, p. 3.

hectares), and (2) the expansion of private ownership of Cape mountain zebras.²⁵ In some cases, both private and protected areas have expanded together, such as the 2016 declaration of the Mountain Zebra and Camdeboo Protected Environment. This project will link the two fully-protected national parks through creating a corridor of private protected areas. Sixty-seven private areas totaling 268,428 hectares were included in 2016, with additional landowners to be included in the next phase.²⁶ This area expands possible habitat for the largest Cape mountain zebra sub-population.²⁷

The zebra's current range includes 643,210 hectares of national parks or reserves. Three relict sub-populations inhabit Kammanassie Nature Reserve, Gamkaberg Nature Reserve, and Mountain Zebra National Park, the largest sub-population. Zebra have been reintroduced to nine national parks or reserves in their historic range, and seven outside the NDR.²⁸

Sub-populations are typically monitored by annual surveys.²⁹ The sub-population sizes in national parks or reserves range from four to 1,190 individuals. Seven sub-populations exceed 100 individuals, and only three maintain fewer than 15 individuals.³⁰ Within the NDR, the estimated population of Cape mountain zebra is approximately 2,650 individuals. An additional 690 individuals inhabit national parks or reserves outside the NDR.³¹

The Cape mountain zebra's range also includes 296,141 hectares of private land. The privately-owned habitat has increased by over 40% since 2009.³² These sub-populations range from five to 120 individuals. The average sub-population on private land has risen from 25 individuals in 2009 to 29 in 2015, and the total population on private land was estimated at 1,481 in 2015. Privately-owned populations were estimated in 2009 and 2015 studies and a 2016 questionnaire. The 2015 study found these zebra populations could grow by 795 individuals (a potential 53% increase) given currently-available habitat. If the zebra's economic value increased to incentivize a stronger commitment, land owners would be willing to add 222 individuals.³³ Accordingly, private land owners have a "vital role ... in increasing the distribution and abundance of Cape mountain zebra within their historic range ... Maintaining a demand within the private sector is hence crucial."³⁴

It should also be noted that private land owners were "crucial" in the early conservation of Cape mountain zebra. In the 1930s, the "last few groups in the Cradock area were saved from extinction by

²⁵ *CITES Downlisting Proposal*, p. 4.

²⁶ Press Release, Minister Edna Molewa Declared the Mountain Zebra and Camdeboo Protected Environment in the Eastern Cape (Apr. 5, 2016).

²⁷ SANBI & Wildlands Conservation Trust, Case Study: Protected Environment: Mountain Zebra Wilderness Corridor (2015), p. 2.

²⁸ Two-thirds of the zebra's range is fully-protected in these national parks and reserves. *NDF*, p. 6.

²⁹ *CITES Downlisting Proposal*, p. 6.

³⁰ *CMZ 2014/15 Report*, p. 61, 6, 9; *BMP*, p. 5, 20.

³¹ *BMP*, p. 20.

³² *CMZ 2014/15 Report*, p. 8.

³³ *CMZ 2014/15 Report*, p. 10; *CITES Downlisting Proposal*, p. 4-5 (describing earlier study and 2016 questionnaire).

³⁴ *CMZ 2014/15 Report*, p. 1, 5, 6; *BMP*, p. 20 ("The number of Cape mountain zebra sub-populations on private land has increased notably ... and contribute significantly to an increased distribution and abundance of Cape mountain zebra.").

local farmers,” and these privately-owned zebra became the founder population of Mountain Zebra National Park, which in turn founded over 25 sub-populations.³⁵

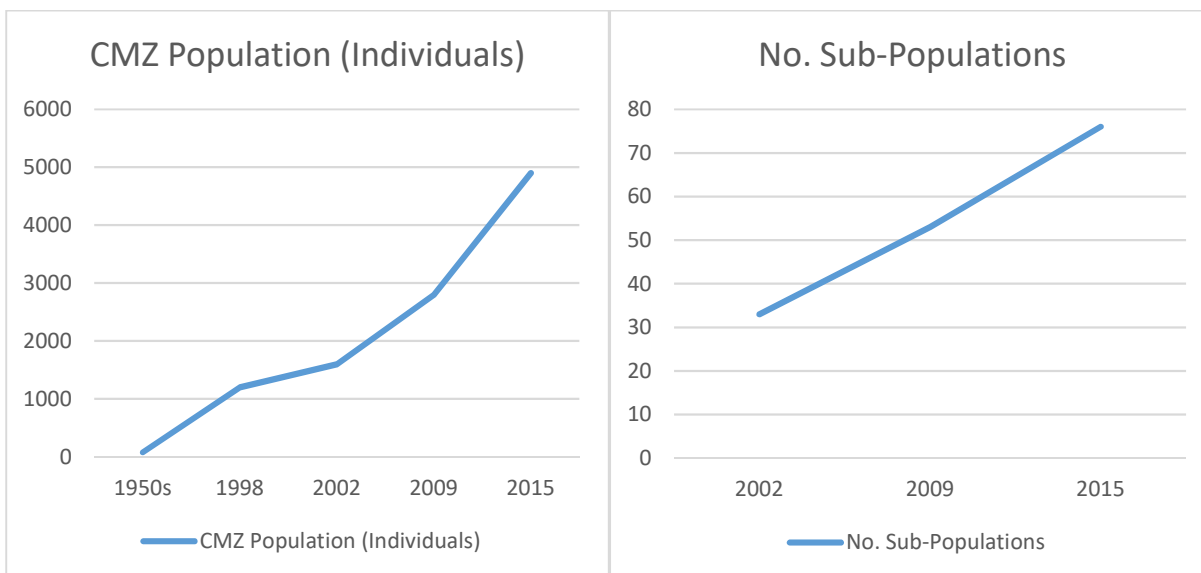
The tables and charts below reflect the Cape mountain zebra’s reported population growth over time.

Year	1950s	1998	2002	2009	2015
Estimated Population	< 80	1,200	>1,600	2,790	4,872
Population on Protected Areas				1,888	3,268
Population on Privately-Owned Land				902	1,487
# of Sub-populations (Total)	3		33	52-53	76
# of Sub-populations (PAs)			16	17-19	19
# of Sub-populations (Private)			17	35-38	56-59

Sources: *CMZ 2014/15*; *BMP*, p. 5; *IUCN Red List Assessment*, p. 4; *Security in Numbers 2013*, p. 405.

Period	1985-1995	1995-1998	2002-2009	2009-2015
Average Annual Rate of Sub-Population Growth	8.6%	9.6%	8.3%	9.2%

Source: *South Africa Red List Assessment*, p. 1.



2. The Zebra’s Habitat Is Secure, But Must Be Expanded for the Population to Continue to Grow

The Cape mountain zebra’s current range is not threatened with destruction or modification. Eleven of the national parks or reserves it inhabits have room for population growth.³⁶ However, some sub-populations have reached or are approaching the range carrying capacity. A recent scientific analysis “using a Bayesian state-space modelling approach” indicated the “future growth potential” of sub-

³⁵ *Security in Numbers 2013*, p. 404.

³⁶ *BMP*, p. 20-21. The zebra populations in three nature reserves have performed poorly due to sub-optimal habitat, and likely will not increase.

populations in national parks or reserves “is constrained by the availability of state-owned land, which will likely reach its carrying capacity by 2020 ... Maintenance of current rates of increase will therefore require extending the available land that can support viable mountain zebra populations ...”^{37, 38}

In proposing the zebra’s downlisting from CITES Appendix I to Appendix II, South Africa emphasized the importance of further engaging the private sector to extend available habitat: “Private ranchers currently play an important role in conserving 31% of the national population, and this could potentially increase in future.” Because “economic incentives are currently lacking, ranchers prefer alternative high value game species over Cape mountain zebra”; therefore, greater private sector investment in zebra must be motivated. “If the Cape mountain zebra were to be transferred to Appendix II and a sustainable hunting quota implemented, it is anticipated that the economic value of the subspecies would increase and thereby incentivize private ranchers to acquire and maintain Cape mountain zebra in preference to alternative species that are less worthy of conservation but currently more profitable.”³⁹ South Africa’s scientifically-designed program to continue to grow its Cape mountain zebra population encourages habitat expansion and private sector investment in the zebra. This well-managed program must be “taken into the account” by the FWS, and this program will be better supported by delisting (or at least, by downlisting such that the exemption under Section 9(c)(2) applies).

In short: the zebra’s continued population growth may be constrained by hitting the current range carrying capacity. South Africa has proposed a sustainable, well-monitored hunting program to generate value for land owners who maintain Cape mountain zebra populations, thereby incentivizing more land owners to develop populations and current private owners to increase their population size, where feasible. ESA delisting will align with South Africa’s intention to expand recovery of the Cape mountain zebra through engaging private ranchers, and will encourage U.S. hunters, who invest the most in conservation hunting, to support this subspecies. It will advance the purposes of the ESA, and CITES. This factor weighs strongly in favor of delisting, or in the alternative, downlisting.

B. There Is No Overutilization for Commercial, Recreational, Scientific, or Educational Purposes – There Is Almost No Current Utilization, and Limited Use Will Benefit the Species

1. Legal Offtakes Are Minimal and Have No Biological Impact on the Expanding Population

The risk of overutilization of Cape mountain zebra is nominal. Offtakes due to translocation or hunting are minimal. Future hunting offtakes will be guided by a scientific population viability model, regulated by careful monitoring, and enforced by national, provincial, and international law. These limited offtakes will benefit the population as a whole by encouraging habitat protection.

³⁷ *CITES Downlisting Proposal*, p. 4; *PVA Report*, p. 6.

³⁸ Another 900,000 hectares of protected areas could be suitable habitat, but “a careful and systematic evaluation of potential sites for habitat suitability, area of suitable habitat, stocking potential, security and manageability will have to be carried out” first. *BMP*, p. 28; *NDF*, p. 7.

³⁹ *CITES Downlisting Proposal*, p. 3. The proposal emphasized that hunting offtakes would be scientifically set and monitored through implementation of the BMP. South Africa’s proposal dovetails with the objectives and actions of the BMP, which include, for example, “[i]ncreas[ing] private sector investment and support for Cape mountain zebra conservation,” through “[d]evelop[ing] incentives for stakeholders to participate in and contribute to achieving the objectives of the Cape mountain zebra BMP-S ...” *BMP*, p. 60.

Currently there is little utilization of Cape mountain zebra. There is no consumptive use of zebra in national parks or reserves (almost 70% of the population).⁴⁰ Offtakes for other reasons are fewer than ten per year. In the 2009-2015 period, 50 individuals were culled from two sub-populations due to disease concerns (see Factor C), and six individuals died following translocation from national parks or reserves (out of 130 total translocated).⁴¹ This has no biological impact on a population that expanded from approximately 1,900 to approximately 3,300 in the same period.

Similarly, intentional take on private land is extremely low. In 2009-2015, a dozen zebra were hunted on permits issued by provincial conservation authorities.⁴² Sixteen individuals were culled due to disease concerns. Twelve died during translocation (out of 254 total translocated).⁴³ Thus, over a six-year period, only 96 zebra died from human intervention, approximately 16 per year in a population that grew from approximately 900 to approximately 1,500 in the same period.

The total zebra offtakes from 2009 to 2015 are listed in the chart below.

Offtake Category	Zebra – National Parks/Reserves	Zebra – Privately-Owned	Total Offtakes (% Population 2015)
Culled due to disease concerns	50	16	66 (1.35%)
Died during trans-location	6	12	18 (0.37%)
Legally hunted (provincial permit)	0	12	12 (0.25%)
Total	56	40	96 (1.97%)

Source: *CMZ 2014/15 Report*, p. 12.

2. *Illegal Trade Is Non-Existent and Has No Biological Impact on the Expanding Population*

There is no illegal trade in Cape mountain zebra.⁴⁴ Threats are limited, and mitigated by the adoption of a new Biodiversity Management Plan and a new emphasis on increasing genetic diversity among sub-populations. (See Factor C.)

3. *All Future Legal Trade Will Be Carefully Controlled and Will Benefit the Species*

In its proposal to downlist the subspecies, South Africa assured that annual offtakes and exports of Cape mountain zebra will be strictly regulated by national law, provincial authorities, and CITES itself, and will be “carefully controlled and monitored to ensure that [they are] sustainable and do [] not have any

⁴⁰ *CITES Downlisting Proposal*, p. 5; IUCN/TRAFFIC, *Analyses of Proposals to Amend the CITES Appendices at CoP17* (2016), p. 2 (acknowledging this is a built-in safeguard to downlisting to Appendix II); *NDF*, p. 2.

⁴¹ *CMZ 2014/15 Report*, p. 12.

⁴² *NDF*, p. 2 (“Limited hunting of Cape mountain zebra is allowed on private properties in the Eastern Cape, but until] recently translocation was the only form of harvest approved in the Western Cape. The overall aim of harvest at present is mostly population management/control and the growth of the national meta-population. Hunting of Cape mountain zebra is monitored through CITES exports ... Restrictions in the form of a prohibition on hunting in the Western Cape have been very effective in preventing overuse, however it is debatable whether this prohibition has been to the benefit or detriment of the subspecies.”).

⁴³ *CMZ 2014/15 Report*, p. 12; *BMP*, p. 32.

⁴⁴ *CITES Downlisting Proposal*, p. 3, 5; *NDF*, p. 11 (“There is currently no illegal off take of Cape mountain zebra in any of the national parks where they occur.”).

unanticipated, deleterious consequences.” Hunting quotas will be set after scientific testing, based on a “combination of active adaptive harvest management and management strategy evaluation.” The quota will take genetic diversity and other factors into account. “An individual-based simulation tool [recently was] developed to evaluate the impacts of life stage-and sex-specific hunting quotas and translocation strategies on Cape mountain zebra populations over several years.” Private owners were asked to propose a quota and provide population size and growth rate, age and sex breakdowns, mortalities, habitat, and other data. Wildlife authorities used this data to test proposed quotas and revise them as needed, to a level that will have no detrimental effect on sub-populations. Private owners will monitor and report on the offtakes and outcomes, “which will allow for active adaptive management and sharing of information,” and revision of the quota “in accordance with population performance.”⁴⁵ And even after quotas are set, exports will not be permitted unless the Scientific Authority makes a finding that exports are “not detrimental to the survival of the species.” National and provincial legislation will ensure effective enforcement of these offtake and export controls, “and enable adequate monitoring of the impacts of the hunting quota.”⁴⁶

This system, taken together with the economic benefits to private land owners and wildlife authorities, create conservation incentives and mitigate any risk of overutilization.⁴⁷ Rather than threatening the zebra, introduction of a hunting and export quota is expected to benefit it “by providing incentives for private owners to invest in Cape mountain zebra.” A 2015 study found the zebra’s live-sale price doubled in that year, creating an incentive for private owners to increase maximum population sizes. Likewise, a 2016 questionnaire survey of current owners found an increase in the value of Cape mountain zebra “would justify the expense of bringing in new breeding animals to increase genetic diversity.”⁴⁸ And the 2015 Non-Detriment Finding determined that “a small hunting quota ... is anticipated to generate species and habitat conservation incentives. If the Cape mountain zebra had a higher economic value, there would be more of an incentive to conserve the subspecies and limit the introduction of alternative high-value extra-limital species that can lead to habitat deterioration. More landowners investing in the subspecies will increase its abundance and improve its conservation status within its [NDR].”⁴⁹

⁴⁵ *CITES Downlisting Proposal*, p. 1, 2, 5-6, 3 (“Continued monitoring of the status of the population will assist in assessing the effect of the hunting quota. A Biodiversity Management Plan (BMP) ... will further improve the management and monitoring of Cape mountain zebra and address the major threat to the subspecies, which is a loss of genetic diversity.”); *BMP*, p. 58.

⁴⁶ *CITES Downlisting Proposal*, p. 2, 5-6; *BMP*, p. 31; *NDF* (generally); see also discussion of Factor D.

⁴⁷ The risk mitigation is evident in the 2015 NDF. The Scientific Authority found international trade in Cape mountain zebra would pose a moderate risk because the Biodiversity Management Plan had not yet been adopted and the Population Viability Analysis had not yet been conducted. *NDF*, p. 2; *CMZ 2014/15 Report*, p. 22; *BMP*, p. 36-37. Now that both are being implemented, it is expected the Scientific Authority will make a positive finding for limited offtake and international trade. *NDF*, p. 3 (“The following is thus recommended: 1. A small cautious hunting quota must be determined through a population viability analysis that considers genetic diversity within the population ... 2. A Biodiversity Management Plan must be developed and implemented ... Upon implementation of recommendations 1 and 2 above, the export of hunting trophies can be allowed.”).

⁴⁸ *CITES Downlisting Proposal*, p. 5.

⁴⁹ *NDF*, p. 2; *BMP*, p. 37.

Because overutilization is non-existent, and increased utilization will benefit the subspecies, this factor weighs in favor of *delisting*. At the very least, this factor weighs in favor of downlisting, such that no FWS import permit will be required pursuant to Section 9(c)(2) of the ESA.⁵⁰

C. Disease or Predation Do Not Warrant Continued Listing as Endangered

Because they recovered from a small initial stock and are divided into sub-populations, Cape mountain zebra face the risk of loss of genetic diversity/integrity and possible susceptibility to disease due to inbreeding.⁵¹ However, this is not an immediate threat, and is being managed through implementation of the Biodiversity Management Plan gazetted in December. This risk can also be mitigated if additional sub-populations are founded under the Plan. And as explained above, further growth in sub-populations will be motivated by regulated, sustainable utilization.

The Cape mountain zebra faces a low risk of predation. There are few predators in the primary protected habitats. Where predator reintroductions have been made, they are being monitored. This factor supports delisting of the species.

1. Any Risk of Inbreeding or Disease Is Being Successfully Mitigated

Cape mountain zebra face the risk of inbreeding because most of the translocated zebra that form the feeder stock for the 70+ sub-populations were taken from Mountain Zebra National Park and more than half of these sub-populations had small founder populations (smaller than 14 animals).⁵² Reduced genetic diversity due to inbreeding may increase the susceptibility of some individuals to the disease Equine sarcoidosis.⁵³ In the period 2009-2015, 66 zebra (50 in national parks or reserves and 16 on private land) were culled due to observed sarcoid infections.⁵⁴

To preserve and expand genetic diversity, reduce the risk of disease susceptibility, and provide better overall management of the zebra, the species should be managed as a metapopulation. Translocated zebra should be drawn from different areas and carefully mixed to ensure increased genetic variation. Sub-populations with a small founder stock should be supplemented; sub-populations without recent introductions should be reinforced. And all of this will happen: these recommendations will be implemented through the Biodiversity Management Plan.⁵⁵ This Plan identifies essential activities, sets deadlines and five-year goals, and defines the measurable and outputs to monitor implementation. Key actions that will specifically mitigate the risk of inbreeding include:

⁵⁰ 16 U.S.C. § 1538(c)(2).

⁵¹ *CITES Downlisting Proposal*, p. 3, 4; *NDF*, p. 1 (“The biggest current threat to the Cape mountain zebra is the loss of genetic diversity.”), p. 9-10.

⁵² *CMZ 2014/15 Report*, p. 1, 14.

⁵³ *CITES Downlisting Proposal*, p. 5; *NDF*, p. 2; *CMZ 2014/15 Report*, p. 20; *BMP*, p. 29 (“Marais et al. (2007) proposed that, since the entire Cape mountain zebra population originates from a very small genepool, a reduced innate immune system diversity exists which leads to the increased susceptibility of some smaller populations to equine sarcoids.”).

⁵⁴ *CMZ 2014/15 Report*, p. 12.

⁵⁵ *CMZ 2014/15 Report*, p. 23.

- To establish and maintain a centralized national Cape mountain zebra population database
- To develop and implement a metapopulation management guideline
- To develop a list of priority sites for reinforcement and re-introduction
- To research the genetic diversity of the Cape mountain zebra metapopulation
- To monitor and manage the impacts of metapopulation translocations on genetic diversity
- To research and quantify the extent and severity of possible disease occurrence
- To implement a sarcoid surveillance protocol linked to the national Cape mountain zebra population monitoring database

Thus, while equine sarcoidosis affects the zebra, the threat did not warrant an assessment in South Africa's *Red List* higher than "Least Concern," and was not considered a detriment to the population by the Scientific Authority. The disease is researched, monitored, and reduced by reducing the incidence of inbreeding.⁵⁶ Most importantly, the limited impact of the disease is mitigated by implementation of the Biodiversity Management Plan, which will reduce all the risks associated with fragmented sub-populations, and through a limited hunting quota.⁵⁷ Because this risk is being mitigated, it does not pose extinction risk to the Cape mountain zebra. This factor supports a delisting, or in the alternative, a downlisting to threatened and not endangered status.

2. *Predation Does Not Pose a Significant Risk to Cape Mountain Zebra*

Predation poses a low risk to the Cape mountain zebra metapopulation, and its impact is being carefully monitored, both before and after the preparation of the Biodiversity Management Plan.

Cheetah pose minimal risk to most Cape mountain zebra. Cheetah occur in four of the 19 national parks or reserves which include zebra sub-populations. In national parks or reserves, no cheetah attacks have been observed.⁵⁸ The same is true for leopard attacks. The zebra is relatively heavy and large-bodied, so lion are the only predators that could credibly threaten a healthy adult. Lion have been reintroduced into three of the 19 national parks and one private ranch in recent years. In 2010, lion were reintroduced into Karoo National Park, which hosts the second-largest sub-population (approximately 842 in 2015) and in 2013, lion were reintroduced into Mountain Zebra National Park, which hosts the largest sub-population (approximately 1,191 in 2015). During the two years following their introduction, 13 Cape mountain zebra are believed to have been killed by the two lion in Mountain Zebra National Park. However, the lions' prey preference has shifted away from the zebra to kudu, red hartebeest, and gemsbok as the lion have become more established and expanded their range within the park.⁵⁹

⁵⁶ *BMP*, p. 29, 35-36, 53-55. Significant research has been conducted on the Cape mountain zebra, and more will be conducted under the new Biodiversity Management Plan. *BMP*, p. 1-2, 6, 17, 24, 28, 30-31, 37, 38, 42, 43, 46, 52-56, 59; CapeNature, Research Request: Habitat Evaluation and Best-Practice Habitat Management (2016).

⁵⁷ *CITES Downlisting Proposal*, p. 5 ("In a questionnaire survey conducted in April 2016, six of 23 respondents stated that an increase in the economic value of Cape mountain zebra would justify the expense of bringing in new breeding animals to increase genetic diversity.").

⁵⁸ *CMZ 2014/15 Report*, p. 21 (However, "[c]heetah are thought to be limiting the population growth in at least one private property where 13 partially consumed CMZ carcasses were found over an 18-month period. The cause of death could not be confirmed for these individuals, but cheetah numbers exceeded 21 individuals during that time.")

⁵⁹ *Security in Numbers 2013*, p. 407; *NDF*, p. 11; *CMZ 2014/15 Report*, p. 21.

In short: Cape mountain zebra populations are not in danger of extinction due to predators, which impact is considered “minimal.” (And some natural predation may even benefit the zebra, because “it could restore a facet of natural selection, thereby causing a healthy improvement in Cape Mountain Zebra populations.”⁶⁰) The effects of the lion reintroductions are being monitored, and the overall impact of predation will be further studied across the metapopulation under the Biodiversity Management Plan.⁶¹ As predation does not pose a significant risk and may benefit the species, this factor weighs in favor of delisting (or downlisting in the alternative).

D. Existing Regulatory Mechanisms (Provincial, National, and International) Are Robust, Well-Enforced, and More Than Adequate to Ensure the Zebra’s Future Viability

South Africa has a robust regulatory system to ensure management of Cape mountain zebra addresses any threat to the species. The Biodiversity Management Plan implements metapopulation management and genetic diversity strategies. In addition, South Africa’s regulatory system includes multiple checks to confirm that offtakes of Cape mountain zebra from limited hunting are sustainable and beneficial to the subspecies’ long-term survival. The country’s regulatory mechanisms protect and advance the recovery of Cape mountain zebra sub-populations and the meta population, and the zebra will continue to be monitored as a CITES Appendix-II species.

1. Provincial Regulations Are Sufficient to Monitor Sustainable Zebra Offtakes

The Cape mountain zebra’s range overlaps with the Eastern, Western, and Northern Cape Provinces, and an extant population has been introduced to the Free State Province. Each of these provinces has enacted a Nature Conservation Ordinance to govern wildlife conservation, ranching, hunting, and other related activities.⁶² Permits are required for licensed, regulated hunting offtakes.⁶³ This system is enforced in the Provinces and overseen by national authorities, in a manner not dissimilar from the U.S.

2. National Legislation Is Robust and Updated

South Africa has the following legislation in place at the national level to promote conservation and recovery of wildlife, including the Cape mountain zebra. These laws are up-to-date, and reflect a stronger regulatory structure than when the zebra was listed in 1976.

- National Environmental Management Act, No. 107 of 1998: overall regulation of wild animal species in South Africa; creates permit requirement for any form of use for at-risk wildlife.
- National Environmental Management: Biodiversity Act, No. 10 of 2004: “gives effect to the constitutional commitment to take reasonable legislative measures that promote conservation by providing for the management and conservation of biological diversity and the sustainable use of indigenous biological resources.”

⁶⁰ *Security in Numbers 2013*, p. 407.

⁶¹ *NDF*, p. 11; *BMP*, p. 56.

⁶² *BMP*, p. 41. PHASA makes the relevant ordinances available on their website: <http://www.phasa.co.za/legislation/provincial-nat-conservation/ordinances.html> (Eastern and Western Cape and Free State), <http://www.phasa.co.za/legislation/provincial-nat-conservation/northern-cape/nat-cons-act.html> (Northern Cape).

⁶³ *CITES Downlisting Proposal*, p. 5.

- Threatened or Protected Species (“ToPS”) Regulations, 2007: provide special protection for at-risk or threatened species to secure their survival in the wild; requires permit for any form of use of these species.
- CITES Regulations, 2010: “give effect to South Africa’s obligations as a signatory to CITES insofar as creating a permitting system to regulate the international trade (import, export, and re-export) of listed species ... as well as concomitant administrative, compliance and enforcement structures”; requires a non-detriment finding for export of listed species, among other things.
- National Environment Management: Protected Areas Act, No. 57 of 2003: provides for establishment and conservation of protected areas, including the newly gazetted Mountain Zebra Camdeboo Protected Environment discussed above.⁶⁴

The CITES Secretariat rates South Africa’s legislation as “Category I,” the equivalent category of the ESA.⁶⁵

3. *The Biodiversity Management Plan Promotes the Health and Security of the Zebra Meta-Population*

In 2013, a coalition of wildlife authorities began the preparation of a Biodiversity Management Plan for Cape mountain zebra. It was completed in 2016. It is the result of two participatory workshops, and incorporates the most recent population data from the 2015 study.⁶⁶ It establishes a vision for the Cape mountain zebra’s future: “An increasing, genetically healthy metapopulation, supporting sustainable offtakes, with an increased conservation value and private sector investment in Cape mountain zebra.”⁶⁷ The Biodiversity Management Plan incorporates an “Action Plan and Monitoring Framework” to guide implementation, which prioritizes goals and strategic objectives and specifically defines activities to address identified challenges, with outputs, measurables, and indicators to monitor progress. It also assigns responsibilities to key players and identifies sources of funding for delivering each output.⁶⁸

Dr. Peter Novellie, one of the foremost experts in Cape mountain zebra and author of the current IUCN Red List assessment, wrote the Biodiversity Management Plan’s foreword. He emphasized the plan’s collaborative preparation and focus on monitoring and data-sharing. He complimented its “depart[ure] from traditional predictivist measures ... [and] commit[ment] to adaptive management and to the essential requirements of monitoring and review.”⁶⁹ The Biodiversity Management Plan is state-of-the-art, tailored for the zebra’s unique needs, and will accelerate the recovery of Cape mountain zebra populations and mitigate the identified threats to the subspecies, step-by-step, and at the meta-population level.

⁶⁴ *BMP*, p. 39-40. The DEA makes these acts and other regulations available on their website at <https://www.environment.gov.za/legislation/actsregulations>; see also *CITES Downlisting Proposal*, p. 5-6.

⁶⁵ CITES Secretariat, Status of Legislative Progress for Implementing CITES (Updated Sept. 1, 2016), available at <https://cites.org/eng/legislation>.

⁶⁶ *CMZ 2014/15 Report*, p. 22; *BMP*, p. 1, 15, 67-74; South African National Parks, 2013 Research Report (2014), p. 31-32.

⁶⁷ *BMP*, 6, 16.

⁶⁸ Among other things. *BMP*, p. 49-66; see also *CMZ 2014/15 Report*, p. 24.

⁶⁹ *BMP*, p. 4.

4. *The Zebra Remains Well-Protected by the Oversight of an Appendix-II Listing*

International trade in Cape mountain zebra is limited and regulated by CITES. Exports of Appendix II species require an export permit, which may only issue when the Scientific Authority concludes, in accordance with Article IV(2)(a) of the convention, “that such export will not be detrimental to the survival of that species.” This is not a rubber stamp: in 2015, South Africa’s Scientific Authority was unable to make this finding because the metapopulation management plan and population viability assessment were not yet completed.⁷⁰

Cape mountain zebra were downlisted to CITES Appendix II at CoP17 in October 2016. The Parties unanimously supported this downlisting.⁷¹ Conservation Force attended the CoP as a registered NGO and witnessed the support firsthand. Burkina Faso, Canada, the EU, Kenya, the U.S., Zimbabwe, and seven other countries spoke for the proposal. South Africa’s Minister of Environmental Affairs Molewa called the Cape mountain zebra “one of the success stories of conservation in South Africa.” She emphasized that transfer to Appendix II was proposed for management reasons, to “open economic opportunities” and “support expansion of habitat, especially private land.” She confirmed that modeling of the population viability was being conducted and the metapopulation management plan had been completed, thus satisfying the two primary expert recommendations for improved zebra management.

Dr. Rosemarie Gnam expressed the U.S.’ strong support for the downlisting. Among other things, she said the U.S. supports the “establish[ment] of well-managed, biologically supported hunting quotas,” because hunting would benefit the zebra metapopulation by providing benefits to incentivize conservation.

Petitioners respectfully suggest that delisting of the Cape mountain zebra is in line with the U.S.’ support for the downlisting to Appendix II. The removal of the ESA regulatory barrier will encourage greater conservation by encouraging U.S. participation in sustainable use of the zebra. U.S. hunters are willing to invest in conservation, and their involvement will provide greater value to the zebra and encourage greater participation and expansion of habitat on private land.⁷²

E. No Other Significant Natural or Manmade Factors Affect the Subspecies’ Continued Existence

Although Cape mountain zebra could potentially “hybridize” with Hartmann’s mountain zebra, any such risk is neither imminent nor significant, and being mitigated by management action and monitoring.

Research has suggested that Cape mountain zebra may hybridize with Hartmann’s mountain zebra or plains zebra. It is an open question whether hybrids will be fertile or not, especially for mountain zebra and plains zebra. But in any event, hybridization is avoidable. Management actions are being taken to

⁷⁰ NDF, p. 2-3.

⁷¹ CITES CoP 17, Committee I, Summary Record of the Sixth Session of Committee I, CoP17 Com. I Rec. 6 (Rev. 1) (Sept. 28, 2016, 09h30—12h00); Press Release, Cape Mountain Zebra Down Listed from Appendix I to Appendix II (Sept. 28, 2016). This downlisting was applauded by NGOs and experts. *E.g.*, WWF-South Africa, Cape Mountain Zebra Conservation Success Highlighted at CoP (Sept. 28, 2016); South African Government News Agency, Cape Mountain Zebra Moves Off Most Endangered List (Sept. 29, 2016).

⁷² At the very least, downlisting to threatened will allow the zebra to fall under the import permit exemption in Section 9(c)(2) of the ESA. This will facilitate sustainable, beneficial international trade in zebra trophies and incentivize the species’ continued recovery.

eliminate hybridization opportunities. Hartmann’s mountain zebra populations are being translocated from the Cape mountain zebra range. One population with confirmed hybrid individuals is being “outbred” to move it back toward “pure” Cape mountain zebra genetics.⁷³ And plains zebra are also being translocated from Mountain Zebra National Park and other protected areas where the subspecies co-exist.⁷⁴

The Biodiversity Management Plan acknowledges the threat of hybridization and incorporates at least three action items: to (1) advance research and (2) increase knowledge on hybridization (using genetic testing, among other things), and (3) eliminate the threat through translocations, culling if necessary, and improved metapopulation monitoring and management.⁷⁵ Because this threat is being eliminated, it does not and cannot support a continued listing. Rather, this situation provides another example of South Africa’s dedicated, competent management of Cape mountain zebra.

CONCLUSION

In 2016, the Cape mountain zebra was downlisted to “Least Concern” on South Africa’s *Red List*. Similarly, the Cape mountain zebra was downlisted from Appendix I to Appendix II of CITES. And the Cape mountain zebra is in the process of being downlisted on the IUCN *Red List*. There is a developing trend, and the FWS should follow it. The Cape mountain zebra should be delisted under the ESA. It has recovered such that it does not qualify as an “endangered species,” i.e., “at risk of extinction,” and it does not even qualify as a “threatened” species, at risk of extinction in the “foreseeable future.” Like its recent past, the zebra population is expected to continue to expand. Habitat is its main limitation, and a delisting will improve the availability of habitat. Delisting will benefit the species. The FWS has publicly recognized South Africa’s success in conserving the Cape mountain zebra, and acknowledged the critical role well-managed, sustainable hunting can play in promoting the zebra’s continued recovery. And now the time has come to put those words into action.

Therefore, considering the information submitted here and the attached documents, Congress’ intent in enacting the ESA, and the likely benefits from delisting, and “taking into account” the proven success of South Africa’s programs to recover and continue to grow the zebra population, Petitioners respectfully request and recommend the FWS delist the Cape mountain zebra from the ESA. In the alternative, Petitioners request that the Cape mountain zebra be downlisted to threatened status from its current endangered listing.

Respectfully submitted,



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⁷³ *CMZ 2014/15 Report*, p. 13; *NDF*, p. 10 (provinces have established policies to prevent hybridization).

⁷⁴ *CMZ 2014/15 Report*, p. 16-17, 21.

⁷⁵ *BMP*, p. 46-47, 53, 54, 57-58.

ATTACHMENTS

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2. CITES CoP 17, Committee I, Summary Record of the Sixth Session of Committee I, CoP17 Com. I Rec. 6 (Rev. 1) (Sept. 28, 2016, 09h30—12h00)
3. H. Hrabar & G.I.H. Kerley, Conservation Goals for the Cape Mountain Zebra *Equus zebra zebra* – Security in Numbers, *Oryx* 47(3) 403 (2013), https://www.researchgate.net/profile/Halszka-Hrabar/publication/258889644_Conservation_goals_for_the_Cape_mountain_zebra_Equus_zebra_zebra_-_Security_in_numbers/links/0c9605295c5b27aa04000000.pdf
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5. H. Hrabar *et al.*, A Conservation Assessment of *Equus zebra ssp. zebra*, in M.F. Child *et al.*, The Red List of Mammals of South Africa, Swaziland, and Lesotho (2016), https://www.ewt.org.za/Reddata/pdf/RLA_Equus%20zebra%20zebra_LC.pdf
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7. P. Novellie, *Equus zebra*, The IUCN Red List of Threatened Species (2008), <http://www.iucnredlist.org/details/7960/0>
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9. Press Release (DEA), Minister Edna Molewa Declared the Mountain Zebra and Camdeboo Protected Environment in the Eastern Cape (Apr. 5, 2016), https://www.environment.gov.za/mediarelease/molewa_declared_mountainzebraandcamdeboo
10. Press Release (DEA), Cape Mountain Zebra Down Listed from Appendix I to Appendix II (Sept. 28, 2016), https://www.environment.gov.za/mediarelease/capemountainzebra_downlisted
11. Republic of South Africa, Proposal to Transfer the Cape Mountain Zebra from Appendix I to Appendix II, CoP17 Prop. 6 (2016), <https://cites.org/sites/default/files/eng/cop/17/prop/060216/E-CoP17-Prop-06.pdf>
12. Scientific Authority of the Republic of South Africa, Non-Detriment Finding for *Equus zebra zebra* (Cape Mountain Zebra) (2015), https://www.environment.gov.za/sites/default/files/docs/ndf_forcapemountainzebra.pdf

13. South African Government News Agency, Cape Mountain Zebra Moves Off Most Endangered List (Sept. 29, 2016), <http://www.sanews.gov.za/south-africa/cape-mountain-zebra-moves-most-endangered-list>
14. South African National Biodiversity Institute (SANBI) & Wildlands Conservation Trust, Case Study: Protected Environment: Mountain Zebra Wilderness Corridor (2015), <http://biodiversityadvisor.sanbi.org/wp-content/uploads/2016/09/4.-BIODIVERSITY-STEWARDSHIP-Case-study-3-Mountain-Zebra.pdf>
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17. WWF-South Africa, Cape Mountain Zebra Conservation Success Highlighted at CoP (Sept. 28, 2016), <http://www.wwf.org.za/?18861/Cape-mountain-zebra-CoP>