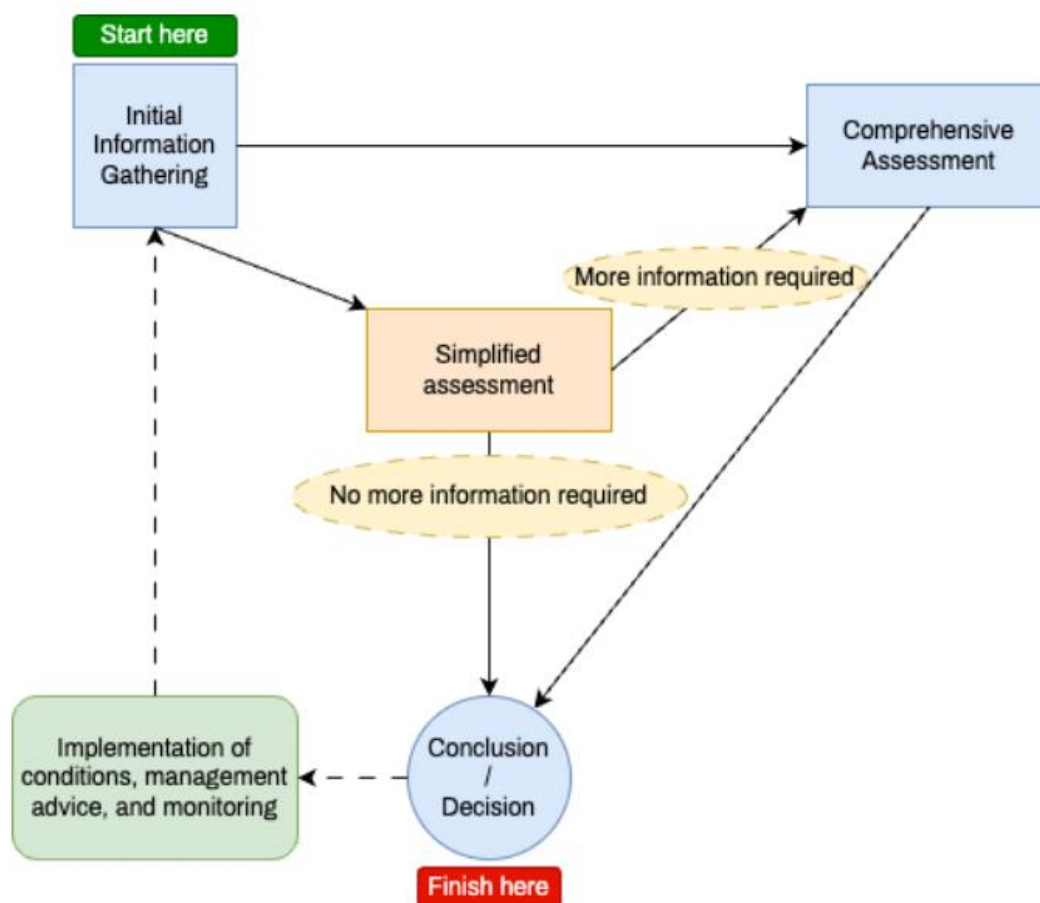




CITES Webinar on NDF guidance

Case studies

21 August 2024



Initial information gathering	Background checks to review basic information about the specimens and its trade, and whether and what type of an NDF is necessary, such as a Simplified or Comprehensive Assessment
Simplified Assessment (optional)	Undertake where it is likely easy to establish whether harvesting for trade is non-detrimental
Comprehensive Assessment (where needed)	Undertake when it is not possible to determine non-detriment based on a Simplified Assessment (without first doing a Simplified Assessment, or after a Simplified Assessment)
Conclusion or decision	Conclusion or decision. The final NDF decision may also include conditions or management advice
Adaptive Management and Monitoring (optional)	Once management advice is implemented, their impact should be monitored and information should feed into future NDFs

Case study 1: *Phrynosoma hernandesi* (Module 14 section 7.9, amended)



Source: Wikipedia

Species name	<i>Phrynosoma hernandesi</i>			
Range state name				
Report compiled by				
Date compiled				
Section One: Summary				
<p><i>Please provide a short overview (1-2 paragraphs) of the trade in this species in the country of interest.</i></p> <p>International trade in the species seems to be very low. As the species was only recently listed in App. II, comprehensive trade data is lacking. However, according to the LEMIS database only 11 wild specimens have been exported from the US between 2006 and 2020.</p>				
Section Two: Simple Evaluation score				
	Number of points			Score
Criteria	1	2	3	
Annual Harvest level	Low (<500)	Medium (500 - 5,000)	High (>5,000)	1
Area of distribution	Large (>20,000km ²)	Medium (2,500 – 20,000km ²)	Small (<2,500km ²)	1
Life-history	Fast	Medium	Slow	1-2
Conservation or threat status	If the status of the species is threatened or Unknown give a max score of 1 point.			0
Illegal trade	If levels of illegal trade are inferred by reference to seizure data, they should be included under “Annual harvest level”. If illegal trade is known to be occurring, but <i>levels</i> are unknown give a max score of 1 point.			0
Final Score and Justification	(If score lower than five (5) = trade is non-detrimental (record the score and justification in the worksheet provided). If the Simplified NDF score is equal to or greater than five (5) then a Comprehensive Assessment should be undertaken.			3-4
<p><i>Please score each attribute listed within the table below and sum these to provide a total.</i></p>				
Section Three: Justification – Harvest level				
<p><i>Please provide an explanation with appropriate references to justify the score given.</i></p> <p>11 wild caught specimens have been exported from the US between 2006 and 2020 (LEMIS trade database). It seems that <i>P. hernandesi</i> is not harvested for other purposes than the pet trade. The species is only listed in CITES since February 2023, therefore no other trade data is available. The harvest volume is considered “low”.</p>				

<p>Section Four: Justification – Area of distribution</p> <p><i>Please provide an explanation with appropriate references to justify the score given.</i></p> <p>The species occurs in Canada, USA and Mexico with an estimated distribution range of 1,691,719.62 km². In the US, the species has a rather large distribution range. Habitats are diverse and vary from semi-arid plains, forest, grassland, shrubs to high mountains. The exact AOO in the US is unknown, but according to the large range and diverse habitats the AOO it can be considered “large” as well.</p>
<p>Section Five: Justification – Life history</p> <p><i>Please provide an explanation with appropriate references to justify the score given.</i></p> <p><i>P. hernandesi</i> is viviparous. According to James et al. (2004), females reproduce annually, giving birth to 6-13 neonates. Males reach sexual maturity with about one year, females breed in their second year. The life history can be assessed “fast” to “medium”.</p>
<p>Section Six: Conservation or threat Status</p> <p><i>Please provide an explanation with appropriate references to justify the score given.</i></p> <p>The species is assessed Least Concern with a stable population trend. Therefore, a point of “0” will be given.</p>
<p>Section Seven: Illegal trade</p> <p><i>Please provide an explanation with appropriate references to justify the score given.</i></p> <p>There is no evidence for illegal trade in the species. Therefore, a point of “0” will be given.</p>
<p>Section Eight: Conclusion, course of action, and determination on exports</p> <p><i>Please provide an overall conclusion on the perceived threat of trade to the species and details on whether further course of action will be taken to complete an NDF for the species.</i></p> <p>Due to the vast distribution range, good conservation status and low harvest, international trade in the species is currently not perceived as a threat to the species.</p>
<p>Section Nine: Literature Cited</p> <p><i>Please provide references to all the reports and literature cited in this evaluation.</i></p> <p>Hammerson, G.A. 2007. <i>Phrynosoma hernandesi</i>. <i>The IUCN Red List of Threatened Species</i> 2007: e.T64076A12741970. https://dx.doi.org/10.2305/IUCN.UK.2007.RLTS.T64076A12741970.en. Accessed on 12 April 2023.</p> <p>James, J.D., Alberta Conservation Association, Alberta & Alberta (2004). Status of the short-horned lizard (<i>Phrynosoma hernandesi</i>) in Alberta; Update 2004/. Alberta Sustainable Resource Development, Fish & Wildlife.</p> <p>U.S. Fish & Wildlife Service (USFWS). 2018. LEMIS database.</p>

Case study 2: *Amazona farinosa* (Module 14, section 6.2)

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Source: Wikipedia

Species name	Mealy Amazon - <i>Amazona farinosa</i>			
Range state name				
Report compiled by				
Date compiled				
Section One: Summary				
<p><i>Please provide a short overview (1-2 paragraphs) of the trade in this species in the country of interest.</i></p> <p>In terms of international trade, Suriname is a significant exporter of live <i>Amazona farinosa</i>. Suriname's wildlife trade sector is contributing to its economy, especially bird species, including <i>A. farinosa</i>, account for a significant portion of its exports. This species is widespread with a continuous distribution at the national level and is harvested from the wild for the export with the following purposes: commercial trade, breeding in captivity, zoo and scientific. From 2013 to 2020, live specimens were exported with a mean of 181 individuals each year. Since 2022, Suriname has implemented a zero-export quota for this species after the publication regarding this matter by the CITES Secretariat in 2022.</p>				
Section Two: Simple Evaluation score				
<p><i>For the taxon for which the NDF is being completed, define sensible threshold values for each criterion based on the best information available. Please score each attribute listed within the table below and sum these to provide a total.</i></p>				
Table 2C. Scoring criteria for the five variables of interest in the <i>Simplified Assessment</i>.				
	Number of points			Score
Criteria	1	2	3	
Annual Harvest level	Low	Medium	High/Unknown	1
Area of distribution	Large	Medium	Small/Unknown	1
Life-history	Fast	Medium	Slow/Unknown	2
Conservation or threat status	If the status of the species is threatened or Unknown, give a max score of 1 point.			0
Illegal trade	If levels of illegal trade are inferred by reference to seizure data, they should be included under "Annual harvest level". If illegal trade is known to be occurring, but <i>levels</i> are unknown give a max score of 1 point.			1
Final Score and Justification	(If score lower than five (5) = trade is non-detrimental (record the score and justification in the worksheet provided). If the Simplified NDF score is equal to or greater than five (5) then a Comprehensive Assessment should be undertaken.			5

Section Three: Justification – Annual harvest level

Please provide an explanation with appropriate references to justify the score given.

From 2013 – 2020, a total of 1450 live specimens were exported with a mean of 181 individuals each year. Analysis of the CITES export trade data shows that most of the specimens which were exported, came from the wild except in 2017, where twenty specimens were exported from breeding in captivity, and in 2020 fourteen specimens were exported from breeding in captivity. The SA is aware of one permit for breeding in captivity for his species in Suriname but there is no data available to support the export of this source. The table below shows an overview of the export numbers on yearly basis.

Year	2013	2014	2015	2016	2017	2018	2019	2020	Total
Export from Suriname	347	172	131	184	203	237	99	77	1450

Suriname has a system of voluntary export quotas for wildlife fauna species, which was in place 1987 after revision of the Game Law 1954 and has been revised in 1995 and is up until date used. Before the latest decision of the Standing Committee (SC74 doc. 30.1), the quota for the *A. farinosa* was 450. Suriname implemented a zero-export quota for *A. farinosa* after the publication regarding this matter by the CITES Secretariat in 2022 since this species has been placed under the RST.

Suriname does not have a harvest plan for this species. Although this species is a CITES Appendix II listed species, it is not a fully protected species in Suriname as it is nationally listed as a cage species. The Game Act of 1954, the Game State Decree and the Game Calendar regulate trade of this species. Hunting, capture, transport and trade of this species is prohibited during the closed season from December until June (mating and breeding season). Most of the legal national harvest occurs in the coastal areas and areas where there is no strong local control.

Based on this information, the harvest level can be considered as “low”.

Section Four: Justification – Area of distribution

Please provide an explanation with appropriate references to justify the score given.

The exact area of occupancy in Suriname is not available for this species. This species inhabits extensive tracts of lowland tropical evergreen forest, also occurring in palm stands, deciduous and gallery woodland and secondary growth near forest. In Suriname, this species is mostly found in forests along rivers and savannah forests throughout the country. In July and August flocks come on forested sand-ridges in the coastal region. The national distribution of this species in Suriname is widespread and contiguous. Recent population study on known harvest sites shows that this species is still in abundance in the wild (Ramcharan 2022). The population trend is stable, however like many other parrot species, they are facing challenges due to illegal harvesting and trade. These factors can significantly affect their populations and their ability to adapt to changing environments in the long term. Taking in consideration that Suriname is 93% forested, which estimates a land area of ~152.000 km², the area of occupancy for this species is “large” (>20.000km²).

Section Five: Justification – Life history

Please provide an explanation with appropriate references to justify the score given.

Estimated to be medium, thought to be between 4-5 at reproductive maturity (Sholty 2006) and average generation length is 9.56 years (BirdLife International 2023)

This species has a monogamous mating system. Mating occurs once a year and normally begins in the spring. Once sexually mature, this species parrots will choose one partner for life.

The table below shows an overview of the reproductive features of the *A. farinosa*.

Breeding interval Mealy parrots breed for a span of a few months once a year.	Breeding season Breeding occurs from November to March.	Average eggs per season 3 eggs
Average time to hatching 4 weeks	Average time to independence 2 months	Range age at sexual or reproductive maturity (female) 4 to 5 years
Range age at sexual or reproductive maturity (male) 4 to 5 year		

Section Six: Conservation or threat status

Please provide an explanation with appropriate references to justify the score given.

IUCN status: Least Concern (IUCN 2023)

Section Seven: Illegal trade

Please provide an explanation with appropriate references to justify the score given.

Due to the lack of data, it is difficult to quantify the extent of illegal trade of this species. Anecdotal reports of illicit and transborder trade that could pose a threat to this species.

Section Eight: Conclusion, course of action, and determination on exports

Please provide an overall conclusion on the perceived threat of trade to the species and details on whether further course of action will be taken to complete an NDF for the species.

Based on this simplified assessment score we need more information on the species so a comprehensive assessment is required.

Factor	Assessment may consider	Evaluation – example indicators		
Species' biology and life-history characteristics	r-selected species or population (reproductive capacity, niche width)	r-selected species (early maturity, short-lived, more offspring), adapts to various habitat types	K-selected species (late maturity, long-lived, few offspring), specialist	UNKNOWN
Species' range (historical and current)	Distribution and trends	Widespread, stable distribution over time, connected populations	Endemic, restricted, fragmented, declined over time, shared stocks	UNKNOWN
Population structure, status and trends	Population size / structure/ density and trends (harvest area and nationally)	Population size large, stable or increasing. Representative inventories/surveys over time	Low population size, declining trend, skewed populations (age classes or sex).	UNKNOWN
Conservation status	Status and trends (global, national, and local scales)	LC	VU, NT	CR, EN, DD / Ap, I
Threats	Other threats and trends	No other significant known threats	Subject to multiple threats (habitat loss, climate change, IAS)	UNKNOWN

Factor	Assessment may consider	Evaluation – example indicators (not exhaustive)	
Harvest impacts/total offtake impacts	Impact of harvest/total offtake on harvest area, national population and internationally. Consider total volume of harvest/offtake (both for domestic and export as well as any other offtake, or removal of specimens from the wild) and legal and illegal harvest. Consider harvest/offtake from harvest area in context of national level trade and trend.	Low impact (e.g., Non-lethal harvest * that does not imply removal of individuals from the wild; Harvest of the species with low survival rate (source B); Harvest is on post-reproductive stages only (e.g. older males). Harvest not impacting other areas.	Impacts severe (e.g., harvest doesn't take into account age/sex of specimens or is done at critical life stages for reproduction). Harvest area acting as sink for surrounding areas.
Trade impacts	Impact of trade on harvest area, national population and internationally. Consider total volume of trade (domestic and export) trade (known, inferred, projected, estimated).	Low levels of trade relative to population. (also illegal trade known)	High levels of trade in comparison with population. Illegal trade known.
Population monitoring	Is a monitoring program in place? Frequency of monitoring depending on species characteristics. Methods for monitoring.	Regular, using robust methods (changes in density, distribution, demography considered)	No/frequent monitoring, unreliable methods
Management measures in place/proposed including adaptive management	Harvest management/ compliance / land and resource tenure	Measures in place (e.g. quotas, size/sex limits, protected/no-take areas, limits on effort/ gear. Tenure: strong long-term control.	No or inadequate management measures in place. Tenure: Open access (e.g. fisheries in APNU), no harvest controls.

Section Eight: Literature Cited

Please provide references to all the reports and literature cited in this evaluation.

BirdLife International (2023) Species factsheet: Amazona farinosa. Downloaded from <http://datazone.birdlife.org/species/factsheet/southern-mealy-amazon-amazona-farinosa> on 05/12/2023.

Sholty, K. 2006. "Amazona farinosa" (On-line), Animal Diversity Web. Accessed December 05, 2023 at https://animaldiversity.org/accounts/Amazona_farinosa/

IUCN 2023. The IUCN Red List of Threatened Species. Version 2022-2. <https://www.iucnredlist.org>

Ministry of Land policy and Forest Management

CITES trade data base 2023 <https://trade.cites.org/>

Ramcharan S. and Linaard M. (2022, August 5). Population size status of parrot species, a focus on population size of parrot species in known harvest areas, Suriname.

Case study 3: Simplified Assessments for Perennial Plants (Module 11, Table 11A)

Criteria	Number of points			Score
	1	2	3	
Annual harvest level	<ul style="list-style-type: none"> • Number or volume of harvest is small in relation to abundance of the species • Harvest volume decreasing over time • Harvest infrequent with respect to the rate of replacement of harvested individuals • Population numbers and distribution stable or increasing 	<ul style="list-style-type: none"> • Number or volume of harvest neither small nor large in relation to abundance of the species • Harvest volume stable or slowly increasing over time • Population numbers and distribution stable 	<ul style="list-style-type: none"> • Harvest volume high in relation to information about abundance of species and part used • Harvest volume increasing quickly, or decreasing in response to limited resource availability • Long term, continuous harvest • Population numbers and distribution declining due to offtake <p>OR</p> <ul style="list-style-type: none"> • Unknown / Data insufficient 	
Distribution	<ul style="list-style-type: none"> • Distribution is widespread, commonly occurring through the country (likely in several countries) 	<ul style="list-style-type: none"> • Distribution is restricted to a relatively small part of the country (and likely to few countries) 	<ul style="list-style-type: none"> • Distribution is locally restricted, i.e. endemic, found in only one or few localities <p>OR</p> <ul style="list-style-type: none"> • Unknown / Data insufficient 	
Life-history	<ul style="list-style-type: none"> • Species is fast growing, reproduces early and/or easily re-sprouting after harvest • Species reproduces asexually or is wind pollinated; many viable seeds with abiotic dispersal; long-lived seed bank 	<ul style="list-style-type: none"> • Growth rate medium and partly re-sprouting after harvest • Species reproduces asexually or is wind pollinated; many viable seeds with abiotic dispersal; long-lived seed bank 	<ul style="list-style-type: none"> • Species is slow growing, late to reproduce and/or not re-sprouting • Species is dioecious (male and female flowers on separate plants) or monocarpic (flowers and sets seed only once); adapted to specialised pollinators and/or seed dispersers; produces few viable seeds; short-lived seed bank <p>OR</p> <ul style="list-style-type: none"> • Unknown / Data insufficient 	

Criteria	Number of points			Score
	1	2	3	
Illegal trade	<p>If levels of illegal trade are implied by reference to seizure data, they should be included under “Annual harvest level”. If levels are unknown, but known to be occurring, give a maximum score of 1 point.</p> <p>Indicators for low concern (i.e. score = 0):</p> <ul style="list-style-type: none"> • Good documentation of domestic and international trade • Trade chain transparent • Little concern about substitution for a look-alike species • Estimated harvest and estimated volume in legal domestic and reported export trade are approximately equal <p>Indicators for concern (i.e. score = 1):</p> <ul style="list-style-type: none"> • Poor documentation of legal domestic and international trade • Trade chain difficult to track or intransparent • Concern about substitution for a look-alike species • Concern whether estimated harvest volume is approximately equal to legal domestic and reported export trade • Documented illegal trade • Quantities legally exported are significantly smaller than quantities reported by importing countries 			
Threat status (IUCN Red List, national or other status assessment)	<p>If the status of the species is listed as VU, EN, or CR in the IUCN Red List Of Threatened Species, or in national lists and other status assessments, or where species status has not been assessed or are data deficient (DD) give a maximum score of 1 point</p>			
Final score and justification	<p>A Simplified Assessment score of lower than five (5) = trade is non-detrimental (record the score and justification in the worksheet provided).</p> <p>If the Simplified Assessment score is equal to or greater than five (5) then the non-detriment requirement cannot be satisfied, warranting additional information based on other indices to evaluate detriment.</p> <p>A more comprehensive NDF should be undertaken.</p>			