Risk Assessment

The following risk assessment determines the risk of __**Spotted Hyena**__ to Tasmania using the Bomford model (2008) and proposes assigned threat categories and import classifications for the species.

Species:	**Spotted hyena, *Crocuta crocuta***	
Date of Assessment:	31 August 2022	
Literature search type and date:	Species profile, NRE library literature search & web	
Factor	**Score**	
A1. Risk posed from individual escapees (0-2)	2	The animal sometimes attacks when unprovoked and/or is capable of causing serious injury (requiring hospitalisation) or fatality
A2. Risk to public safety from individual captive animals (0-2)	0	Nil or low risk (highly unlikely or not possible)
Stage A. Risk posed by individual animals (risk that a captive or escape animal would harm people)	**Public Safety Risk Score** = A1 + A2 =2	**Public Safety Risk Ranking** A ≥ 2, Highly Dangerous A = 1, Moderately Dangerous A = 0, Not Dangerous =Highly Dangerous
B1. Climate match score (1-6)	3	47 cells in the top 5 score
B2. Exotic population established overseas score (0-4)	0	No exotic populations have been established
B3. Overseas range size score (0-2)	1	16,450,209 km^2
B4. Taxonomic class score (0-1)	1	Mammal
Stage B. Likelihood of establishment (risk that a particular species will establish a wild population in Tasmania)	**Establishment Risk Score** = B1 + B2 + B3 + B4 =5	**Establishment Risk Ranking** B = 11-13, Extreme B = 9-10, High B = 6-8, Moderate B ≤ 5, Low = Low
C1. Taxonomic group (0-4)	2	Carnivora
C2. Overseas range size (0-2)	1	16,450,209 km^2
C3. Diet and feeding (0-3)	2	Mammal that is a strict carnivore and strictly ground living

C4. Competition for native fauna for tree hollows (0-2)	0	Does not use tree hollows
C5. Overseas environmental pest status (0-3)	0	Never reported as an environmental pest in any country or region
C6. Climate match to areas with susceptible native species or communities (0-5)	4	50% of the geographic range of one or more susceptible native species or ecological communities that are listed as threatened under Tasmanian legislation lies within the mapped area of the six climate match classes
C7. Overseas primary production (0-3)	2	moderate
C8. Climate match to susceptible primary production (0-5)	5	>150
C9. Spread disease (1-2)	2	Mammal
C10. Harm to property (0-3)	0	Nil
C11. Harm to people (0-5)	4	Injuries or harm moderate, severe, or fatal and few people at risk
Stage C. Consequence of Establishment (risk that an established population would cause harm)	**Consequence Risk Score** = sum of C1 to C11 =22	**Consequence Risk Ranking** C > 19, Extreme C = 15-19, High C = 9-14, Moderate C < 9, Low =Extreme
ASSIGNED THREAT CATEGORY:	**EXTREME** **SERIOUS** **MODERATE** **LOW** **EXTREME UNTIL PROVEN OTHERWISE**	
PROPOSED IMPORT CLASSIFICATION:	**PROHIBITED** **IMPORT RESTRICTED TO THOSE LICENCE HOLDERS APPROVED FOR KEEPING SERIOUS THREAT SPECIES** **IMPORT RESTRICTED TO THOSE LICENCE HOLDERS APPROVED FOR KEEPING MODERATE THREAT SPECIES** **IMPORT PERMITTED**	

CALCULATING TOTAL COMMODITY DAMAGE SCORE

Column 1	Column 2	Column 3	Column 4	Column 5
Industry	**Commodity Value Index (CVI)**	**Potential Commodity Impact Score (PCIS, 0-3)**	**Climate Match to Commodity Score (CMCS, 0-5)**	**Commodity Damage Score (CDS columns 2 x 3 x 4)**
Cattle (includes dairy and beef)	**11**	2	4	88
Timber (includes native and plantation forests)	**10**	0	0	0
Aquaculture	**6**	0	0	0
Sheep (includes wool and meat)	**5**	2	4	40
Vegetables	**5**	0	0	0
Fruit (includes wine grapes)	**5**	0	0	0
Poultry (including eggs)	**1.5**	2	4	12
Cereal grain (includes wheat, barley, sorghum etc)	**1**	0	0	0
Other crops and horticulture (includes nuts and flowers)	**1**	0	0	0
Pigs	**1**	2	4	8
Bees (includes honey, beeswax, and pollination)	**0.5**	0	0	0
Oilseeds (includes canola, sunflower etc)	**0.5**	0	0	0
Grain legumes (includes soybeans)	**0.3**	0	0	0
Other livestock (includes goats and deer)	**0.3**	2	4	2.4
Total Commodity Damage Score (TCDS)				150.4

APPENDIX B: ASSIGNING SPECIES TO THREAT CATEGORIES

A: Danger posed by individual animals (risk a captive or escaped individual would harm people)	**B: Likelihood of establishment** (risk that a particular species will establish a wild population in Tasmania)	**C: Consequence of establishment** (risk that an established population would cause harm)	**Threat category**	**Implications for any proposed import into Tasmania**
Highly, Moderately or Not Dangerous	Extreme	Extreme	Extreme	Prohibited
Highly, Moderately or Not Dangerous	Extreme	High		
Highly, Moderately or Not Dangerous	Extreme	Moderate		
Highly, Moderately or Not Dangerous	Extreme	Low		
Highly, Moderately or Not Dangerous	High	Extreme		
Highly, Moderately or Not Dangerous	High	High		
Highly, Moderately or Not Dangerous	Moderate	Extreme		
Highly, Moderately or Not Dangerous	High	Moderate	Serious	Import restricted to those licence holders approved for keeping serious threat species
Highly, Moderately or Not Dangerous	High	Low		
Highly, Moderately or Not Dangerous	Moderate	High		
Highly Dangerous	Moderate	Moderate		
Highly Dangerous	Moderate	Low		
Highly, Moderately or Not Dangerous	Low	Extreme		
Highly, Moderately or Not Dangerous	Low	High		
Highly Dangerous	Low	Moderate		
Highly Dangerous	Low	Low		
Moderately or Not Dangerous	Moderate	Moderate	Moderate	Import restricted to those licence holders approved for keeping moderate threat species
Moderately or Not Dangerous	Moderate	Low		
Moderately or Not Dangerous	Low	Moderate		
Moderately Dangerous	Low	Low		
Not Dangerous	Low	Low	Low	Import permitted
Unknown	Any value	Any value	Extreme until proven otherwise	Prohibited
Any Value	Unknown	Any value		
Any Value	Any value	Unknown		
Unassessed	Unassessed	Unassessed		