

Setting the scene

Many people enjoy the company of their pets. Research has shown that people can benefit from owning a pet including; reduced blood pressure and cholesterol levels, alleviating depression and opportunities for regular exercise. Elderly people particularly benefit from interactions with a pet and young children often develop a deeper appreciation and respect of animals if their household contains one or more pets. An increasing number of Australian households are embracing pet ownership.

A large American company is keen to capitalise on this trend by introducing a totally new animal to the Australian pet trade business. Domesticated bobcats are now the second most popular pet in America. They display many desirable qualities found in both domestic cats and dogs and are remarkably easy to train. Many well known US celebrities are now sporting a bobcat instead of a Chihuahua. This has added to the bobcat's popularity and has increased its profile as a suitable companion animal.

Using the pest risk assessment table, calculate the probability this animal will become a feral pest in Australia.



What to do

The Government agency (Biosecurity Australia) responsible for assessing the risk from allowing the import of pests has sought comment from your business, (Conservation Matters), on your views about the risk from permitting the import of American bobcats into Australia.

1. Research the biology of the American bobcat to assess the potential for this animal to become an established pest.
2. Use your findings to complete the pest risk assessment guide and create a score for each of the following sections:
 - ▶ Risk to public safety
 - ▶ Risk of establishing a wild population
 - ▶ Risk of becoming a pest
3. Use the pest risk assessment table and calculate the threat status of bobcats becoming a pest in Australia if it escapes or is released from a pet-owner's home.
4. Review information about the characteristics of successful pests.
5. Prepare your response in the form of a detailed report to Biosecurity Australia. Include in your response:
 - ▶ the animal's threat status to Australia based on the completed risk assessment activity
 - ▶ the characteristics that would aid this animal in becoming a pest
 - ▶ the economic consequences if this animal established a wild population
 - ▶ impact on primary industry
 - ▶ global industry
 - ▶ tourism industry
 - ▶ the cultural / social consequences if this animal established a wild population
 - ▶ safeguards, if any, that would be required to keep the public safe
 - ▶ the risk of the spread of disease
 - ▶ would public activity / outdoor recreation be affected?

- ▶ the environmental consequences if this animal established a wild population
 - ▶ competition with native animals and birds
 - ▶ are there any critically endangered species that may be adversely affected?
 - ▶ is there a particular habitat that may be adversely affected?

An icon of a stylized eye with a black pupil and a white sclera, looking towards the right.

Feral fact

What is a feral animal?

Strictly, a feral animal is a non-native animal that has escaped from captivity and established a self-sustaining population independent of humans. Hence wild horses, pigs, deer and cats are feral, while foxes and rabbits are not as these latter two animals were deliberately released to establish wild populations. However, the word is now generally applied to any non-native animal that causes serious damage to human interests or a valued resource.

Source: www.feral.org.au

Risk to public safety

Harm to people	no risk to people	0
	very low risk to people	1
	injuries, harm or annoyance likely to be minor and a few people at risk	2
	injuries, harm or annoyance minor but many people at risk	3
	injuries or harm severe or fatal but few people at risk	4
	injuries or harm severe or fatal and many people at risk	5
	AND	
Harm to property (includes damaging buildings, vehicles, fences and roads by chewing or burrowing or polluting with droppings or nesting material)	no harm to personal or public property	0
	very little damage to personal or public property	1
	moderate damage to personal or public property	2
	severe damage to personal and public property	3
	unknown damage potential	3
Spread disease	all birds and animals likely or unlikely to spread disease	2
	TOTAL SCORE A	

Risk of establishing a wild population

Reproduction	more than 4 offspring per year	3
	less than 4 offspring per year	1
Diet and feeding	a mammal that is a strict carnivore (only eats other animals) and arboreal (climbs trees)	3
	a mammal that is a strict carnivore but not arboreal	2
	a mammal that is a non-strict carnivore (eats animals and plants)	1
	a mammal that is primarily a grazer or browser	3
	other herbivorous mammal or not a mammal	0
	Unknown diet	3
TOTAL SCORE B		
Competition with native fauna for tree hollows	can nest or shelter in tree hollows	2
	does not nest or shelter in tree hollows	0
	unknown	2
Habitat	can live in human-disturbed habitats (including agricultural and grazing land, plantations, urban environments)	3
	can only live in undisturbed (natural) habitat	1
	TOTAL SCORE C	
Overseas <u>environmental</u> pest status	the species is not an environmental pest in any country or region	0
	minor environmental pest in any country or region	1
	moderate environmental pest in any country or region	2
	major environmental pest in any country or region	3
	unknown environmental pest status	3
Overseas <u>primary production</u> pest status	the species does not damage crops or other primary production in any country or region	0
	minor pest of primary production in any country or region	1
	moderate pest of primary production in any country or region	2
	major pest of primary production in any country or region	3
	unknown primary production pest status	3
TOTAL SCORE D		

Risk to public safety

Taxonomic group	a mammal in one of the orders that cause serious effects on prey abundance and/or habitat destruction (Carnivora, Artiodactyla, Rodentia, Lagomorpha, Perissodactyla and Marsupialia)	2
	a mammal in one of the families that cause agricultural damage resulting in loss of revenue (Canidae, Mustelidae, Cervidae, Leporidae, Muridae and Bovidae)	2
	a bird in one of the families that cause agricultural damage resulting in loss of revenue (Psittaciformes, Fringillidae, Polceidae, Sturnidae, Anatidae and Corvidae)	2
	none of the above	0
	TOTAL SCORE E	
Overseas range size (including today's range and the past 300 years)	overseas geographic range less than 10 million square kilometres	0
	overseas geographic range 10 – 30 million square kilometres	1
	overseas geographic range greater than 30 million square kilometres	2
	overseas geographic range unknown	2
Migration pattern	does not migrate in its native range	1
	migrates in its native range	0
	migration unknown	1
	TOTAL SCORE F	
Reproduction	maximum offspring per year is greater than 4	3
	maximum offspring per year is less than 4	1
Diet and feeding	a mammal that is a strict carnivore (only eats other animals) and arboreal (climbs trees)	3
	a mammal that is a strict carnivore but not arboreal	2
	a mammal that is a non-strict carnivore (eats animals and plants)	1
	a mammal that is primarily a grazer or browser	3
	other herbivorous mammal or not a mammal	0
	unknown diet	3
	TOTAL SCORE G	
Competition with native fauna for tree hollows	can nest or shelter in tree hollows	2
	does not use tree hollows	0
	unknown	2
Habitat	can live in human-disturbed habitats (including agricultural and grazing land, plantations, urban environments)	3
	can only live in undisturbed (natural) habitat	1
	TOTAL SCORE H	
Overseas <u>environmental</u> pest status	the species is not an environmental pest in any country or region	0
	minor environmental pest in any country or region	1
	moderate environmental pest in any country or region	2
	major environmental pest in any country or region	3
	unknown environmental pest status	3
Overseas <u>primary production</u> pest status	the species does not damage crops or other primary production in any country or region	0
	minor pest of primary production in any country or region	1
	moderate pest of primary production in any country or region	2
	major pest of primary production in any country or region	3
	unknown primary production pest status	3
TOTAL SCORE I		

Transfer these scores to the Pest Risk Assessment Table to complete your assessment of the animal.

Add the following scores together in each category and record the total.

	SCORES	TOTAL
Risk to public safety	A	
Risk of establishing a wild population	B + C + D	
Risk of becoming a pest	E + F + G + H + I	

Locate the level of risk for each category.

Level of risk	LOW	MODERATE	HIGH	EXTREME
Risk to public safety	2	3 – 5	6 – 8	9 – 10
Risk of establishing a wild population	2 – 5	6 – 9	10 – 13	14 – 17
Risk of becoming a pest	2 – 7	8 – 13	14 – 19	20 – 22

Locate the level of risk for each category and record the threat status.

Risk of becoming a pest	Risk of establishment	Risk to public safety	Threat status
extreme	extreme	extreme, high, moderate, low	EXTREME
high	extreme	extreme, high, moderate, low	EXTREME
moderate	extreme	extreme, high, moderate, low	EXTREME
low	extreme	extreme, high, moderate, low	EXTREME
extreme	high	extreme, high, moderate, low	EXTREME
high	high	extreme, high, moderate, low	EXTREME
moderate	high	extreme, high, moderate, low	SERIOUS
low	high	extreme, high, moderate, low	SERIOUS
extreme	moderate	extreme, high, moderate, low	EXTREME
high	moderate	extreme, high, moderate, low	SERIOUS
moderate	moderate	extreme, high	SERIOUS
moderate	moderate	moderate, low	MODERATE
low	moderate	extreme, high	SERIOUS
low	moderate	moderate, low	MODERATE
extreme	low	extreme, high, moderate, low	SERIOUS
high	low	extreme, high, moderate, low	SERIOUS
moderate	low	extreme, high	SERIOUS
moderate	low	moderate, low	MODERATE
low	low	extreme, high	SERIOUS
low	low	moderate	MODERATE
low	low	low	LOW