

Information about GB Non-native Species Risk Assessments

The Convention on Biological Diversity (CBD) emphasises the need for a precautionary approach towards non-native species where there is often a lack of firm scientific evidence. It also strongly promotes the use of good quality risk assessment to help underpin this approach. The GB risk analysis mechanism has been developed to help facilitate such an approach in Great Britain. It complies with the CBD and reflects standards used by other schemes such as the Intergovernmental Panel on Climate Change, European Plant Protection Organisation and European Food Safety Authority to ensure good practice.

Risk assessments, along with other information, are used to help support decision making in Great Britain. They do not in themselves determine government policy.

The Non-native Species Secretariat (NNSS) manages the risk analysis process on behalf of the GB Programme Board for Non-native Species. Risk assessments are carried out by independent experts from a range of organisations. As part of the risk analysis process risk assessments are:

- Completed using a consistent risk assessment template to ensure that the full range of issues recognised in international standards are addressed.
- Drafted by an independent expert on the species and peer reviewed by a different expert.
- Approved by an independent risk analysis panel (known as the Non-native Species Risk Analysis Panel or NNRAP) only when they are satisfied the assessment is fit-for-purpose.
- Approved for publication by the GB Programme Board for Non-native Species.
- Placed on the GB Non-native Species Secretariat (NNSS) website for a three month period of public comment.
- Finalised by the risk assessor to the satisfaction of the NNRAP.

To find out more about the risk analysis mechanism go to: www.nonnativespecies.org

Common misconceptions about risk assessments

To address a number of common misconceptions about non-native species risk assessments, the following points should be noted:

- Risk assessments consider only the risks posed by a species. They do not consider the practicalities, impacts or other issues relating to the management of the species. They therefore cannot on their own be used to determine what, if any, management response should be undertaken.
- Risk assessments are about negative impacts and are not meant to consider positive impacts that may also occur. The positive impacts would be considered as part of an overall policy decision.
- Risk assessments are advisory and therefore part of the suite of information on which policy decisions are based.
- Completed risk assessments are not final and absolute. Substantive new scientific evidence may prompt a re-evaluation of the risks and/or a change of policy.

Period for comment

Draft risk assessments are available for a period of three months from the date of posting on the NNSS website*. During this time stakeholders are invited to comment on the scientific evidence which underpins the assessments or provide information on other relevant evidence or research that may be available. Relevant comments are collated by the NNSS and sent to the risk assessor. The assessor reviews the comments and, if necessary, amends the risk assessment. The final risk assessment is then checked and approved by the NNRAP.

*risk assessments are posted online at:

<https://secure.fera.defra.gov.uk/nonnativespecies/index.cfm?sectionid=51>

comments should be emailed to nnss@fera.gsi.gov.uk

GB NON-NATIVE ORGANISM RISK ASSESSMENT SCHEME

For more information visit: www.nonnativespecies.org

Name of Organism:		<i>Psittacula krameri</i> - Ring-necked Parakeet (also know as Rose-ringed parakeet)	
Objectives:		Assess the risks associated with this species in GB	
Version:		FINAL 30/03/11	
N	QUESTION	RESPONSE	COMMENT
1	What is the reason for performing the Risk Assessment?		
2	What is the Risk Assessment area?	Great Britain	
3	Does a relevant earlier Risk Assessment exist?	NO OR UNKNOWN (Go to 5)	
4	If there is an earlier Risk Assessment is it still entirely valid, or only partly valid?		
A	Stage 2: Organism Risk Assessment		
	SECTION A: Organism Screening		
5	Identify the Organism. Is the organism clearly a single taxonomic entity and can it be adequately distinguished from other entities of the same rank?	YES (Give the full name & Go to 7)	<i>Psittacula krameri</i> - Ring-necked Parakeet. Four subspecies are recognised and although the British Ornithologists' Union treat the race occurring in Britain as 'undetermined' (BOU, 1991), it is reported that they are probably a mixture of <i>P. krameri borealis</i> and <i>P. krameri manillensis</i> (Morgan, 1993, and Pithon & Dytham, 2001).
6	If not a single taxonomic entity, can it be redefined?		
7	Is the organism in its present range known to be invasive, i.e. to threaten species, habitats or ecosystems?	YES (Go to 9)	In its native India, it is considered a major crop pest taking grain and fruit (Ali & Ripley, 1969 and Dhinsa & Saini, 1994). Stubbe and Matthysen (2007) are the first to demonstrate that Ring-necked Parakeets can have a detrimental effect on numbers of native secondary cavity nesters and further research appears likely to show further detrimental effects to native fauna.
8	Does the organism have intrinsic attributes that indicate that it could be invasive, i.e. threaten species, habitats or ecosystems?		
9	Does the organism occur outside effective containment in the Risk Assessment area?	YES (Go to 10)	The Ring-necked Parakeet has been breeding the southeast of England since 1969 (Lever, 1977). In 1996 a census by simultaneous roost count reported a population size of approximately 1,500 (Pithon & Dytham, 1999) and by 2001/02 the population had risen to approximately 5,900 (Butler, 2002). No containment measures appear to have been recently used.
10	Is the organism widely distributed in the Risk Assessment area?	NO (Go to 11)	Ogilvie <i>et al.</i> (2004) reported breeding populations in at least five counties, although geographical spread is limited and the species is largely limited to a number of habitual sites (Pithon & Dytham, 2002). However, Butler (2003) noted that parakeets are now being seen in rural areas rather than the previously typical urban and semi-urban areas, and he suggested that it may not be long before they spread into the British countryside.
11	Does at least one species (for herbivores, predators and parasites) or suitable habitat vital for the survival, development and multiplication of the organism occur in the Risk Assessment area, in the open, in protected conditions or both?	YES (Go to 12)	Found in a wide variety of environments including urban and semi-urban areas (Lever, 1987). Generalist feeder, consuming a variety of cereals, weed and tree seeds, fruit, nuts and flowers (Juniper & Parr, 1998). Current populations exist in Britain utilising many species to survive, develop and multiply (Pithon & Dytham, 2002).
12	Does the organism require another species for critical stages in its life cycle such as growth (e.g. root symbionts), reproduction (e.g. pollinators; egg incubators), spread (e.g. seed dispersers) and transmission, (e.g. vectors)?	NO (Go to 14)	
13	Is the other critical species identified in question 12 (or a similar species that may provide a similar function) present in the Risk Assessment area or likely to be introduced? If in doubt, then a separate assessment of the probability of introduction of this species may be needed.		
14	Does the known geographical distribution of the organism include ecoclimatic zones comparable with those of the Risk Assessment area or sufficiently similar for the organism to survive and thrive?	YES (Go to 16)	Non-native breeding populations in at least five counties of Britain (Ogilvie, 2004) as well as in other countries in a similar ecoclimatic zone, such as the United States of America (Butler, 2005), Belgium (Strubbe & Matthysen, 2007), Germany and Netherlands (Juniper & Parr, 1998).
15	Could the organism establish under protected conditions (e.g. glasshouses, aquaculture facilities, terraria, zoological gardens) in the Risk Assessment area?		
16	Has the organism entered and established viable (reproducing) populations in new areas outside its original range, either as a direct or indirect result of man's activities?	YES (Go to 17)	It is the most widely introduced parrot in the world with breeding populations in 35 countries, spanning five continents (Butler, 2003).

17	Can the organism spread rapidly by natural means or by human assistance?	YES (Go to 18)	Largely sedentary species (Juniper and Parr, 1998) and introduced populations appear to spread slowly during establishment (Butler, 2003). Populations have become established globally due to introductions (Juniper & Parr, 1998) and during the expansion phase numbers can rise exponentially (Butler, 2003).
18	Could the organism as such, or acting as a vector, cause economic, environmental or social harm in the Risk Assessment area?	YES OR UNCERTAIN (Go to 19)	It is considered a major crop pest taking grain and fruit in India (Ali & Ripley, 1969 and Dhinsa & Saini, 1994) and at least one report of damage to commercial crops in the UK exists (Hamilton, 2004), although the significance of this damage has not been reported in the scientific literature. Butler (2003) suggested that should populations continue to grow in the U.K. they could begin to have an economic impact on agriculture. Stubbe and Matthysen (2007) have demonstrated that Ring-necked Parakeets in Belgium are having a detrimental effect on numbers of native secondary cavity nesters. Ring-necked Parakeets are possible vectors for diseases such as Newcastle disease (Butler, 2003) and cryptosporidium (Morgan <i>et al.</i> , 2000), both of which could affect poultry. They could also cause noise nuisance in residential areas.
19	This organism could present a risk to the Risk Assessment area and a detailed risk assessment is appropriate.	Detailed Risk Assessment Appropriate GO TO SECTION B	
20	This organism is not likely to be a harmful non-native organism in the Risk Assessment area and the assessment can stop.		

B SECTION B: Detailed assessment of an organism's probability of entry, establishment and spread and the magnitude of the economic, environmental and social consequences				
Probability of Entry		RESPONSE	UNCERTAINTY	COMMENT
1.1	List the pathways that the organism could be carried on. How many relevant pathways can the organism be carried on?	moderate number - 2	LOW - 0	Pet trade (releases and escapes) and natural spread (flight) from present introduced population, although dispersal capacity should be slow due to their sedentary nature.
1.2	Choose one pathway from the list of pathways selected in 1.1 to begin the pathway assessments.	Pet Trade		
1.3	How likely is the organism to be associated with the pathway at origin?	very likely - 4	LOW - 0	Parakeets are still trapped in their native range for export, as reported in the CITES trade database, and are bred in captivity. It is also believed that the U.K. feral population might be persecuted through the removal of chicks from nest cavities for future sale in the pet trade (Pithon & Dytham, 1999). The EU introduced a permanent ban on the importation of wild birds (Commission Regulation (EC) No 318/2007), effective from July 2007, which is likely to have a major impact on trade.
1.4	Is the concentration of the organism on the pathway at origin likely to be high?	likely - 3	MEDIUM -1	Since aviculture is so popular, it is likely that captive bred birds will provide ample supplies to the pet trade (Pithon & Dytham, 2002). Wild caught birds may also be used in the trade (Pithon & Dytham, 1999).
1.5	How likely is the organism to survive existing cultivation or commercial practices?	very likely - 4	LOW - 0	Ring-necked Parakeets have survived and bred in the U.K. since 1969 (Lever, 1977).
1.6	How likely is the organism to survive or remain undetected by existing measures?	likely - 3	LOW - 0	Large, colourful, highly vocal and very distinct from native birds, although no clear and fool-proof method exists for transferring records from the public to policy makers.
1.7	How likely is the organism to survive during transport /storage?	very likely - 4	LOW - 0	Large volumes of birds are imported in order to compensate for the high mortality rates during transportation. However, high numbers can survive.
1.8	How likely is the organism to multiply/increase in prevalence during transport /storage?	very unlikely - 0	LOW - 0	Stress and conditions during transportation make it unlikely birds will reproduce.
1.9	What is the volume of movement along the pathway?	moderate - 2	HIGH -2	Potentially very high, given that CITES reports nearly 750,000 live birds to have been exported in the past 25 years and over 25,000 of those imported to the U.K. Theile <i>et al.</i> (2004) reported 137,621 imported by EU and Acceding States between 1996 and 2002.
1.10	How frequent is movement along the pathway?	occasionally - 2	HIGH -2	See above (1.9), given that hundreds of thousands can be exported, frequency could be very high, although since the EU ban was introduced movement is likely to have reduced.
1.11	How widely could the organism be distributed throughout the Risk Assessment area?	very widely - 4	MEDIUM -1	Populations already exist in urban and semi-urban areas (Butler, 2003). Rapidly increasing population size and sightings in rural areas suggest that they could also colonise the British countryside.
1.12	How likely is the organism to arrive during the months of the year most appropriate for establishment ?	likely - 3	LOW - 0	The population is already established and it is likely that escapes and releases occur throughout the year.
1.13	How likely is the intended use of the commodity (e.g. processing, consumption, planting, disposal of waste, by-products) or other material with which the organism is associated to aid transfer to a suitable habitat?	likely - 3	LOW - 0	The parakeets are the commodity.
1.14	How likely is the organism to be able to transfer from the pathway to a suitable habitat?	very likely - 4	LOW - 0	Escapes and releases are likely to be most prevalent in areas densely populated by humans (urban and semi-urban) where the parakeets have proven their ability to establish themselves.

	Probability of Establishment	RESPONSE	UNCERTAINTY	COMMENT
1.15	How similar are the climatic conditions that would affect establishment in the Risk Assessment area and in the area of current distribution?	very similar - 4	LOW - 0	Ring-necked parakeets are already established in the risk assessment area and appear to be in the expansion phase of their introduction (Butler, 2003).
1.16	How similar are other abiotic factors that would affect establishment in the Risk Assessment area and in the area of present distribution?	very similar - 4	LOW - 0	See above
1.17	How many species (for herbivores, predators and parasites) or suitable habitats vital for the survival, development and multiplication of the organism species are present in the Risk Assessment area? Specify the species or habitats and indicate the number.	very many - 4	LOW - 0	Generalist feeders, consuming a variety of cereals, weed and tree seeds, fruit, nuts and flowers (Juniper & Parr, 1998) including bird food provided by humans in gardens (Butler, 2003). Secondary cavity nesters preferring higher cavities but not limited by tree species and even choosing to nest in buildings (Ali & Ripley, 1969).
1.18	How widespread are the species (for herbivores, predators and parasites) or suitable habitats vital for the survival, development and multiplication of the organism in the Risk Assessment area?	widespread - 4	LOW - 0	Urban settlements are widespread in the risk assessment area and since Ring-necked Parakeets have already been reported in the British countryside it seems likely that at saturation they could have colonised much of the risk assessment area.
1.19	If the organism requires another species for critical stages in its life cycle then how likely is the organism to become associated with such species in the risk assessment area?	N/A	LOW - 0	Ring-necked Parakeets do not require another species for establishment.
1.20	How likely is it that establishment will not be prevented by competition from existing species in the Risk Assessment area?	very likely - 4	LOW - 0	They are robust, early nesters and no evidence yet shows that competition with native species is hampering their expansion (Butler, 2003).
1.21	How likely is it that establishment will not be prevented by natural enemies already present in the Risk Assessment area?	very likely - 4	LOW - 0	The only natural predators likely to pose a threat are the Sparrowhawk <i>Accipiter nisus</i> and Goshawk <i>Accipiter gentilis</i> (Pithon & Dytham, 2002). Level of mortality is unknown but Ring-necked Parakeet population has continually grown since 1969 despite potential predation.
1.22	If there are differences in man's management of the environment/habitat in the Risk Assessment area from that in the area of present distribution, are they likely to aid establishment? (specify)	N/A	LOW - 0	No difference, Ring-necked Parakeet is already established in the risk assessment area.
1.23	How likely is it that existing control or husbandry measures will fail to prevent establishment of the organism?	very likely - 4	LOW - 0	No co-ordinated control exists. Pithon & Dytham (1999) suggest some persecution may take place in the form of chick removal from nest cavities for subsequent sale and destruction of individuals straying onto agricultural land, but this has not suppressed the population expansion. Ring-necked Parakeets are protected under the Wildlife & Countryside Act 1981.
1.24	How often has the organism been recorded in protected conditions, e.g. glasshouses, elsewhere?	N/A	LOW - 0	No reports found.
1.25	How likely is the reproductive strategy of the organism and duration of its life cycle to aid establishment?	likely - 3	MEDIUM -1	Ring-necked Parakeets lay 3-6 eggs per brood (Ali & Ripley, 1969) considerably earlier than many native species, thereby reducing competition for cavities (Butler, 2003). Nesting success in its native range is reported between 1.4 and 3.1 fledged young and in the U.K. it was found to be 1.9 (Butler, 2003). They are able to produce second clutches within one season and are also long lived.
1.26	How likely is it that the organism's capacity to spread will aid establishment?	likely - 3	MEDIUM -1	Ring-necked Parakeets are largely sedentary and although their population is increasing exponentially (Butler, 2002) their range expansion is relatively slow at 0.4km/year (Butler, 2003). This is leading to dense populations and it is likely that saturation in specific areas will force birds to spread at a further.
1.27	How adaptable is the organism?	very adaptable - 4	LOW - 0	It has successfully established breeding populations in 35 countries across five continents, adapting to a wide range of ecoclimatic and habitat conditions (Butler, 2003). Sol <i>et al.</i> (2002) report that organisms with larger brain to body size ratios, for example parakeets, tend to be more successful invaders.
1.28	How likely is it that low genetic diversity in the founder population of the organism will not prevent establishment?	unlikely - 1	LOW - 0	The population is already established and continues to increase. There are no reports of low genetic diversity in the scientific literature and further escapees/releases could introduce greater genetic diversity to existing populations.
1.29	How often has the organism entered and established in new areas outside its original range as a result of man's activities?	very many - 4	LOW - 0	It has successfully established breeding populations in 35 countries across five continents as a result of introductions by man (Butler, 2003).
1.30	How likely is it that the organism could survive eradication campaigns in the Risk Assessment area?	unlikely - 1	MEDIUM -1	The population already stands at well over 5,000 individuals and Butler (2003) suggests that an annual harvest of 30% of the total population would be required to reverse population growth. Although this is entirely feasible given the will and the resources, such a campaign is likely to be confronted by public opposition.
1.31	Even if permanent establishment of the organism is unlikely, how likely is it that transient populations will be maintained in the Risk Assessment area through natural migration or entry through man's activities (including intentional release into the outdoor environment)?	likely - 3	LOW - 0	They are likely to escape or be released if they continue to be kept as pets and as such are likely to form at least transient populations.

	Spread	RESPONSE	UNCERTAINTY	COMMENT
2.1	How rapidly is the organism liable to spread in the Risk Assessment area by natural means?	slow - 1	LOW - 0	Geographic spread has been slow in the last 30 years and the latest estimate is 0.4km/year (Butler, 2003). However, the number of birds appears to have increased dramatically, from 500 in 1986 to well over 2,500 in 1999 (Butler, 2005) and Pithon & Dytham (2002) report a rate of increase between 10% and 25% per annum.
2.2	How rapidly is the organism liable to spread in the Risk Assessment area by human assistance?	intermediate - 2	LOW - 0	When Munoz & Real (2006) modelled the expansion of the Monk parakeet, they suggested that slow settlement would result in source populations from which dispersal takes place, but that this dispersal is greatly aided and strengthened by additional escapees. Ring-necked parakeets have already been reported from Brighton (Butler, 2003) up to Scotland (Anon, 2006).
2.3	How difficult would it be to contain the organism within the Risk Assessment area?	with some difficulty - 2	MEDIUM -1	If the feral population is culled significantly and over a sustained period it is likely that the population could be contained. However, indefinite management is likely due to further escapes and releases.
2.4	Based on the answers to questions on the potential for establishment and spread define the area endangered by the organism.		LOW - 0	The entire risk assessment area. Predominantly urban and semi-urban areas are currently under threat, but rural areas could also be at risk.

	Impacts	RESPONSE	UNCERTAINTY	COMMENT
2.5	How important is economic loss caused by the organism within its existing geographic range?	moderate - 2	LOW - 0	In its native range it is considered one of the most destructive bird pests of agriculture (Ali & Ripley, 1969). Otherwise, there are few reports of economic damage, although there are signs that this is beginning to occur in the U.K. where damage to vineyards resulted in only one sixth of the expected wine production (Hamilton, 2004).
2.6	Considering the ecological conditions in the Risk Assessment area, how serious is the direct negative economic effect of the organism, e.g. on crop yield and/or quality, livestock health and production, likely to be? (describe)	moderate - 2	MEDIUM -1	Although the reported damage to crops in the risk assessment area is currently limited to vineyards, it was significant, reducing the harvest to one sixth of what was expected (Hamilton, 2004). Ring-necked Parakeets have the potential to raid crops of maize and other cereals as well as orchards (Dhindsa & Saini, 1994). Since they can also carry diseases such as Newcastle disease and Cryptosporidium (Morgan <i>et al.</i> , 2000), there is also the potential for them to pass infections to poultry, seriously impacting on that industry.
2.7	How great a loss in producer profits is the organism likely to cause due to changes in production costs, yields, etc., in the Risk Assessment area?	moderate - 2	MEDIUM -1	See above. Wine production reduced from 3,000 bottles to 500 in one season. Impact on other crops as yet unknown, but potentially serious.
2.8	How great a reduction in consumer demand is the organism likely to cause in the Risk Assessment area?	minor - 1	MEDIUM -1	No effect detected.
2.9	How likely is the presence of the organism in the Risk Assessment area to cause losses in export markets?	unlikely - 1	MEDIUM -1	If diseases are transferred to poultry, export could be affected but risk is low.
2.10	How important would other economic costs resulting from introduction be? (specify)	moderate - 2	MEDIUM -1	Reasonable funds required for initial population reduction and then moderate funds required for monitoring and ongoing control.
2.11	How important is environmental harm caused by the organism within its existing geographic range?	moderate - 2	LOW - 0	High Ring-necked Parakeet populations are reported to be related to reduced populations of native secondary nesters in Belgium (Strubbe & Matthysen, 2007). This is the first time such an effect has been reported, but as more data are collected, it is likely that other similar effects will be reported.
2.12	How important is environmental harm likely to be in the Risk Assessment area?	moderate - 2	MEDIUM -1	It seems likely that Ring-necked Parakeets will compete with and suppress populations of native secondary cavity nesters as in Belgium (Strubbe & Matthysen, 2007).
2.13	How important is social and other harm caused by the organism within its existing geographic range?	minor - 1	MEDIUM -1	Few reports of social nuisance, although many living in areas inhabited by Ring-necked Parakeets are aware of the noise and some find it irksome.
2.14	How important is the social harm likely to be in the Risk Assessment area?	minor - 1	MEDIUM -1	See above.
2.15	How likely is it that genetic traits can be carried to native species, modifying their genetic nature and making their economic, environmental or social effects more serious?	very unlikely - 0	LOW - 0	No genetically similar native species exist.
2.16	How probable is it that natural enemies, already present in the Risk Assessment area, will have no affect on populations of the organism if introduced?	very likely - 4	LOW - 0	The only natural predators likely to pose a threat are the Sparrowhawk <i>Accipiter nisus</i> and Goshawk <i>Accipiter gentilis</i> (Pithon & Dytham, 2002). Level of mortality is unknown but Ring-necked Parakeet population has continually grown since 1969 despite potential predation.
2.17	How easily can the organism be controlled?	with some difficulty - 2	MEDIUM -1	Several methods are available e.g. chemical agents, shooting, trapping (Butler, 2003). It is thought that in order to reverse the population growth an annual cull of 30% of the total population would be required (Butler, 2003). Although this is feasible given the will and the resources, such a campaign would be necessarily visible to the public and as such may prove controversial.
2.18	How likely are control measures to disrupt existing biological or integrated systems for control of other organisms?	unlikely - 1	LOW - 0	Several methods of extermination (e.g. shooting, nest disruption) are very specific and will not disrupt other organisms.
2.19	How likely is the organism to act as food, a host, a symbiont or a vector for other damaging organisms?	likely - 3	MEDIUM -1	They can carry diseases that could be damaging to native birds and potentially to the poultry industry and even to humans. No outbreaks have yet been reported or attributed to this pathway of transmission.
2.20	Highlight those parts of the endangered area where economic, environmental and social impacts are most likely to occur			Environmental impacts are likely to be seen throughout the risk assessment area should expansion be allowed to continue. Social impacts will be most pronounced in residential areas. Economic damage is initially likely to be on fruit and grain growing land close to urban areas, but it may be that continued expansion will mean that Ring-necked Parakeets reside in rural areas independent of urbanisation.

Summarise Entry	very likely - 4	LOW - 0	Ring-necked Parakeets are the most widely introduced parrot in the world with breeding populations in 35 countries across five continents. It has already entered the risk assessment area and is likely to continue to do so if the pet trade continues.
Summarise Establishment	very likely - 4	LOW - 0	See above. Ring-necked Parakeets are already established in the risk assessment area and the population appears to be in the expansion phase, growing at an exponential rate.
Summarise Spread	intermediate - 2	LOW - 0	See above. Although the Ring-necked Parakeet population is reported to be increasing exponentially, the spread continues to be slow as would be expected for a largely sedentary species. Further introductions promise to speed up spread and indeed they have been seen as far north as Scotland, presumably as a result of escape or release.
Summarise Impacts	moderate - 2	MEDIUM -1	Ring-necked Parakeets are considered a serious agricultural pest in its native range and have shown signs of causing significant damage to crops in the risk assessment area. It has also been demonstrated that introduced populations can have a negative association with native secondary cavity nesters. They may additionally carry several disease which could be harmful to poultry, native fauna and humans. Since they are quite vocal, they could potentially cause noise nuisance in residential areas.
Conclusion of the risk assessment	MEDIUM -1	LOW - 0	The risk assessment area already has an introduced population of Ring-necked Parakeets that entered and established nearly forty years ago and is now expanding exponentially in number. The potential for impact on economic activities (agriculture) and native fauna is high. Containment is still possible although considerable will and resources are required.
Conclusions on Uncertainty		LOW - 0	This risk assessment is based on scientific literature relating to existing populations of Ring-necked Parakeets both in their native range and where they have been introduced. There is no uncertainty about the fact that Ring-necked Parakeets are the most widely introduced parrot in the world, nor is there uncertainty about the potential for negative impacts both economically and on native fauna. Although further research would fill in some gaps of knowledge, it does not appear necessary to back up the substantive conclusions of this risk assessment.

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