Key Threatening Process Nomination Form 2022

This form is for nominations to amend the list of key threatening processes under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and is designed to assist in the preparation of nominations of threatening processes which are consistent with the *Environment Protection and Biodiversity Conservation Regulations 2000*.

The listing of a key threatening process under the EPBC Act is intended to prevent native species or ecological communities from becoming threatened or prevent threatened species and ecological communities from becoming more threatened.

Many processes that occur in the landscape are, or could be, threatening processes, however priority for listing will be directed to *key* threatening processes, those factors that most threaten biodiversity at national scale.

For a key threatening process to be eligible for listing it must meet at least <u>one</u> of the three listing criteria. If there is insufficient data and information available to allow completion of the questions for each of the listing criteria, state this in your nomination under the relevant question.

Important notes for completing this form

- Further information to help you complete this form is provided at <u>Attachment A</u>. If using this form in Microsoft Word, you can jump to this information by Ctrl+clicking the hyperlinks (in blue text).
- Please complete the form as comprehensively as possible it is important for the Threatened Species Scientific Committee to have as much information as possible, and the best case on which to judge a process' eligibility against the EPBC Act criteria for listing.
- Reference all information and facts, both in the text and in a reference list at the end of the form.
- The opinion of appropriate scientific experts may be cited as <u>personal communication</u>, with their approval, in support of your nomination. Please provide the name of the experts, their qualifications and contact details (including state agency, if relevant) in the reference list at the end of the form.
- Keep in mind the relevance of your answers to the listing criteria.
- It is particularly important that the nomination addresses the impact of the threatening process across its national
 extent
- Identify any confidential material and explain the sensitivity.
- Figures, tables and maps can be included at the end of the form or prepared as separate electronic or hardcopy documents (referred to as appendices or attachments in your nomination).
- Cross-reference relevant areas of the nomination form where needed.
- Nominations that do not meet the EPBC Regulations will not proceed see Division 7.2 of the EPBC Regulations 2000 (www.awe.gov.au/epbc/about/index.html). As noted under sub-regulation 7.06(2), if information is *not* available for a particular question please state this in your answer.

Nominated key threate	ening process
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1. NAME OF KEY THREATENING PROCESS

Please note: there is a listed KTP 'Novel biota and their impact on biodiversity' (https://www.environment.gov.au/cgi-bin/sprat/public/publicshowkeythreat.pl?id=20) that includes all invasive species. If this nomination is for an invasive species please contact the Department at epbc.nominations@environment.gov.au to discuss the proposed process prior to preparing a nomination.

2. CRITERIA UNDER WHICH THE KEY THREATENING PROCESS IS ELIGIBLE FOR LISTING

Please mark the boxes that apply. The process could be eligible under one or all three criteria.

Criterion A	Evidence that the threatening process could cause a native species or ecological community to become eligible for listing in any category, other than conservation dependent.
Criterion B	Evidence that the threatening process could cause a listed threatened species or ecological community to become eligible for listing in another category representing a higher degree of endangerment.
Criterion C	Evidence that the threatening process adversely affects two or more listed threatened species (other than conservation dependent species) or two or more listed threatened ecological communities.

3. CONSERVATION THEME

Explain how the nomination relates to this theme. Note that nominations which do not relate to the theme will still be considered.

Conseervation theme for the 2022 assessment period: 'Marine and freshwater species'.

4. **DESCRIPTION** OF THE KEY THREATENING PROCESS

Describe the threatening process in a way that distinguishes it from any other threatening process, and how the process is a *key* threatening process. Include reference to:

- a. the components of the threat (consider both biological and non-biological components),
- b. the processes by which those components interact (if known).

Please provide the following information where available:

- a. the area of extent of the process, including the ecosystems or landscapes the process affects,
- b. the time scale or periodic/seasonal nature of the threatening process,
- c. any compounding impacts from, or interactions with, other threatening processes (e.g. climate change giving an invasive species an additional advantage), and
- d. the proportion of the range of native species (listed or not) that the threatening process is likely to impact .

5. INDIGENOUS CULTURAL SIGNIFICANCE

Is the key threatening process known to have an impact on species or country culturally significant to Indigenous groups within Australia? If so, to which groups? Provide information on the nature of this significance if publicly available.

For a key threatening process to be eligible for listing it must meet at least <u>one</u> of the three listing criteria. You do not need to provide details of the eligibility for all questions 6-11, however the more information you provide the more evidence is available to undertake the assessment. If there are insufficient data and information available to allow completion of the questions for each of the listing criteria, state this in your nomination under the relevant question.

Criterion A: non-EPBC Act listed species/ecological communities

6. SPECIES THAT COULD BECOME ELIGIBLE FOR LISTING AND JUSTIFICATION

Provide details and justification of non-EPBC Act listed species that, due to the impact of the key threatening process, could become eligible for listing in any category, other than conservation dependent. For each species please include:

- a. the scientific name, common name (if appropriate), category it could become eligible for listing in;
- b. data on the current status in relation to the criteria for listing;
- c. specific information on how the threatening process threatens this species; and
- d. information on the extent to which the threat could change the status of the species in relation to the criteria for listing.

7. <u>ECOLOGICAL COMMUNITIES THAT COULD BECOME ELIGIBLE FOR LISTING AND</u> JUSTIFICATION

Provide details and justification of non-EPBC Act listed ecological communities that, due to the impact of the key threatening process, could become eligible for listing in any category. For each ecological community please include:

- a. the complete title (published or otherwise generally accepted), category it could become eligible for listing in;
- b. data on the current status in relation to the criteria for listing;
- c. specific information on how the threatening process threatens this ecological community; and
- d. information on the extent to which the threat could change the status of the ecological community in relation to the criteria for listing.

Criterion B: Listing in a higher threat category

8. SPECIES THAT COULD BECOME ELIGIBLE FOR LISTING IN A HIGHER THREAT CATEGORY AND JUSTIFICATION

Provide details and justification of EPBC Act listed threatened species that, due to the impacts of the threatening process, could become eligible for listing in another category representing a higher degree of endangerment. For each species please include:

- a. the scientific name, common name (if appropriate), category that the item is currently listed in and the category it could become eligible for listing in;
- b. data on the current status in relation to the criteria for listing (at least one criterion for the current listed category has been previously met);
- c. specific information on how the threatening process significantly threatens this species; and
- d. information on the extent to which the threat could change the status of the species in relation to the criteria for listing. This does not have to be the same criterion under which the species was previously listed.

9. <u>ECOLOGICAL COMMUNITIES THAT COULD BECOME ELIGIBLE FOR LISTING IN A HIGHER</u> THREAT CATEGORY AND JUSTIFICATION

Provide details and justification of EPBC Act listed threatened ecological communities that, due to the impacts of the threatening process, could become eligible for listing in another category representing a higher degree of endangerment. For each ecological community please include:

- a. the complete title (published or otherwise generally accepted), category that the item is currently listed in and the category it could become eligible for listing in;
- b. data on the current status in relation to the criteria for listing (at least one criterion for the current listed category has been previously met);
- c. specific information on how the threatening process significantly threatens this ecological community; and
- d. information on the extent to which the threat could change the status of the ecological community in relation to the criteria for listing. This does not have to be the same criterion under which the ecological community was previously listed.

Criterion C: Adversely affected listed species or ecological communities

10. SPECIES ADVERSELY IMPACTED AND JUSTIFICATION

Provide a summary of species listed as threatened under the EPBC Act, which are considered to be adversely affected by the threatening process. For each species please include:

- a. the scientific name, common name (if appropriate) and category of listing under the EPBC Act; and
- b. justification for each species that is claimed to be affected adversely by the threatening process.

11. ECOLOGICAL COMMUNITIES ADVERSELY IMPACTED AND JUSTIFICATION

Provide a summary of ecological communities listed as threatened under the EPBC Act that are considered to be adversely affected by the threatening process. For each ecological community please provide:

- a. the complete title (exactly as listed) and category of listing under the EPBC Act; and
- b. justification for each ecological community that is claimed to be affected adversely by the threatening process, including the severity of the impact on each species.

Threat Abatement

12. THREAT ABATEMENT

Describe what actions could be taken to abate the threatening process. Link these to the components of the threatening process as described in question 4.

13. <u>DEVELOPMENT OF THREAT ABATEMENT PLAN OR AN ALTERNATIVE</u>

Would the development of a threat abatement plan be a feasible, effective and efficient way to abate the process? If so, describe how the threat abatement actions describes in Q12 could be included in a threat abatement plan. Describe any alternative coordinating documents or measures that may assist in abating the threatening process, either

separate from or in conjunction with a threat abatement plan.

Reviewers and Further Information
14. REVIEWER(S)
Has this nomination been reviewed? Have relevant experts been consulted on this nomination? If so, please include their names and current professional positions.
15. MAJOR STUDIES
Identify major studies that might assist in the assessment of the nominated threatening process.
16. FURTHER INFORMATION
Identify relevant studies or management documentation that might relate to the species (e.g. research projects, national park management plans, recovery plans, conservation plans, threat abatement plans, etc.).
17. IMAGES OF THE KTP
Please include or attach images of the KTP if available.
18. IMAGE CONSENT STATEMENT
The Department is seeking permission to use the image(s) provided with the nomination. The Department may choose to use the image in a variety of ways including (but not limited to) printed and online content, social media and press releases. The owner of the image will be attributed if the image is used.
If you own the copyright to the image(s) please select the appropriate box to state your preference. For images sourced from others, include the copyright owner's details. If the source of the image is unknown, please indicate this.
I own the copyright and give permission for the Department to use the image(s)
I own the copyright and do not give permission for the Department to use the image(s)
I do not own the copyright. Permission should be sought from:
19. REFERENCE LIST
Please list key references/documentation you have referred to in your nomination.
20. APPENDIX
Please place here any figures, tables or maps that you have referred to within your nomination. Alternatively, you can provide them as an attachment.

Nominator's details

Note: Your details are subject to the provision of the *Privacy Act* 1988 and will not be divulged to third parties if advice regarding the nomination is sought from such parties.

21. TITLE

22. FULL NAME

23. ORGANISATION OR COMPANY NAME (IF APPLICABLE)

24. CONTACT DETAILS

Email:

Phone:

Postal address:

25. DECLARATION

I declare that, to the best of my knowledge, the information in this nomination and its attachments is true and correct. I understand that any unreferenced material within this nomination will be cited as 'personal communication' (i.e. referenced in my name) and I permit the publication of this information.

Signed:

Date:

Prior to lodging your nomination

In order for received nominations to be eligible for consideration by the Threatened Species Scientific Committee for inclusion on the Finalised Priority Assessment List, nominations <u>must contain</u> all information required by Division 7.2 of the *Environment Protection and Biodiversity Conservation Regulations 2000* (the Regulations) https://www.legislation.gov.au/Series/F2000B00190.

If the required information is not available to be provided in the nomination because of a lack of scientific data or analysis it, is a requirement of the Regulations that the nomination includes an explicitly statement that the data are not available for that question.

Please check that your nomination contains the required information prior to submission

How to lodge your nomination

Completed nominations may be lodged either:

1. by email to: epbc.nominations@environment.gov.au, or

2. by mail to: The Director

Species Listing, Information and Policy Section Protected Species and Communities Branch

Department of Agriculture, Water and the Environment

GPO Box 858 CANBERRA ACT 2601

* If submitting by mail, please include an electronic copy on a memory stick.

NOMINATIONS CLOSE AT 5PM ON 31 MARCH 2022.

^{*} If submitting by email, please attach an electronic signature

Where did you find out about nominating items?
The Committee would appreciate your feedback regarding how you found out about the nomination process. Your feedback will ensure that future calls for nominations can be advertised appropriately.
Please tick
Department website
☐ The Australian newspaper
word of mouth
Social media? if so which
☐ Journal/society/organisation web site or email? if so which one
web search
Other

Attachment A: Further information on completing this form
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1. NAMING THE KEY THREATENING PROCESS <back to Q1>

The name provided should accurately reflect the scope of the process based on the description and evidence provided in this form. The name nominated may not necessarily be the name adopted by the Committee for a successful nomination.

Before nominating a key threatening process please check the list of listed key threatening processes and unsuccessful nominations to determine if the key threatening process, a similar nomination, or broader key threatening process that would include the nomination, has already been assessed and listed or been unsuccessful. This is particularly relevant to invasive species which may be included in the listed 'Novel biota and their impact on biodiversity' key threatening process (http://www.environment.gov.au/cgi-bin/sprat/public/publicshowkeythreat.pl?id=20).

The EPBC Act list of key threatening processes and unsuccessful nominations is available here: http://www.environment.gov.au/cgi-bin/sprat/public/publicgetkeythreats.pl http://www.awe.gov.au/environment/biodiversity/threatened/unsuccessful-ktp.html

4. DESCRIBING THE KEY THREATENING PROCESS <back to Q4>

- 1. Outline what the nomination of the threatening process is seeking to achieve. This should be linked to the threatened species or ecological communities listed in Q2. [For example: reduce ecosystem degradation, habitat loss and species decline in arid and semi-arid habitats due to the threatening weed]
- 2. Provide a description of the threatening process that distinguishes it from any other threatening process, by reference to its biological and non-biological components.

Describe all the components which make up the threatening process. Each biological and non-biological component of the process nominated should be defined as accurately and concisely as possible. If appropriate, in order to distinguish the nominated threatening process from other processes, components which are specifically excluded from the nominated process can be listed.

A **biological threatening process** refers to any threat the primary component of which is a biological entity (eg, a feral species, a pathogen etc).

A non-biological threatening processes may encompass natural or human-activity-driven phenomena that could be a threatening process (e.g. habitat fragmentation, deforestation, pollution, climate change, fishing and hunting practices, collection, commercial demand etc). Please describe the components of the threatening process in a way that clearly articulates how the component links to the identified threatened species or ecological community. Ensure that the component is described in a way that can be addressed in a threat abatement action (see Q12)

While not wishing to restrict the generality of nominations, the Committee would prefer that threatening processes are identified as operating in particular landscape or ecological or seascape contexts.

3. Provide a description of the processes by which those components interact (if known).

In relation to the components defined above, nominators should attempt to identify the interactions that occur between these components, if any. All terms used to name the interactions making up the process should be defined as accurately and as concisely as possible.

Indirect links can also be described here, where the threatening process changes an ecosystem in a way that may threaten a species or ecological community. In order to be considered as part of this nomination, the linkage would need to be clearly established. [For example: A change in vegetation cover affecting water quality may threaten aquatic species in a downstream region]

Specific examples or data demonstrating impact on individual native species or ecological communities can be included in questions 6-11.

6 and 7. CRITERION A <back to Q6> <back to Q7>

Evidence that the threatening process could cause a native species or an ecological community to become eligible for listing in any category, other than conservation dependent.

This criterion refers to species or ecological communities not currently included in the EPBC Act lists, but which could become eligible for listing as threatened due to the impacts of the nominated threatening process. To meet this criterion there must be a high likelihood of a significant effect, to the extent that the species or ecological

community will meet at least one of the criteria for listing, within an indicated timeframe, should the threat continue.

The conservation status categories of listing relevant to this criterion are:

- for species: Extinct, Extinct in the wild, Critically Endangered, Endangered, Vulnerable.
- for ecological communities: Critically Endangered, Endangered, Vulnerable.

Guidelines and criteria for listing species and ecological communities in each of these categories can be found here:

https://www.awe.gov.au/environment/biodiversity/threatened/nominations/forms-and-guidelines

Lists of EPBC Act listed threatened species and ecological communities can be found here: <a href="http://www.environment.gov.au/cgi-bin/sprat/public/publicthreatenedlist.pl?wanted=faunahttp://www.environment.gov.au/cgi-bin/sprat/public/publicthreatenedlist.pl?wanted=florahttp://www.environment.gov.au/cgi-bin/sprat/public/publiclookupcommunities.pl

Justification for the inclusion of species or ecological communities in the nomination needs to be provided. Evidence should be provided for each species or ecological community listed that explains how the impact of the key threatening process may result in the species/ecological community becoming eligible for listing and evidence for which listing category the species/ecological community would be eligible under.

Although there are three criteria for listing a key threatening process, meeting any <u>one</u> of the criteria means a threatening process is eligible for listing as a key threatening process. However, provision of all available evidence against each criterion aids in assessment by the Threatened Species Scientific Committee.

8 and 9. CRITERION B<back to Q8><back to Q9>

Evidence that the threatening process could cause a listed threatened species or a listed threatened ecological community to become eligible to be listed in another category representing a higher degree of endangerment.

This criterion refers to species or ecological communities which are currently included in the EPBC Act threatened lists. In order to cause a species or ecological community to become eligible for listing in a category representing a higher degree of endangerment, there must be a high likelihood of a significant effect, to the extent that the species or ecological community will meet at least one criterion for the higher category, within an indicated timeframe, should the threat continue.

The conservation status categories of listing relevant to this criterion are:

- for species: Extinct in the wild, Critically Endangered, Endangered, Vulnerable or Conservation Dependant.
- for ecological communities: Endangered or Vulnerable.

The categories Extinct for species and Critically Endangered for ecological communities are not relevant, since there are no categories representing a higher degree of endangerment.

Guidelines and criteria for listing species and ecological communities in each of these categories can be found here: https://www.awe.gov.au/environment/biodiversity/threatened/nominations/forms-and-guidelines

Lists of EPBC Act listed threatened species and ecological communities can be found here: <a href="http://www.environment.gov.au/cgi-bin/sprat/public/publicthreatenedlist.pl?wanted=faunahttp://www.environment.gov.au/cgi-bin/sprat/public/publicthreatenedlist.pl?wanted=florahttp://www.environment.gov.au/cgi-bin/sprat/public/publiclookupcommunities.pl

Justification for the inclusion of species or ecological communities in the nomination needs to be provided. Evidence should be provided for each species or ecological community listed that explains how the impact of the key threatening process may result in the species/ ecological community being eligible for listing in a category representing a higher degree of endangerment.

Although there are three criteria for listing a key threatening process, meeting any **one** of the criteria means a threatening process is eligible for listing as a key threatening process. However, provision of all available evidence against each criterion aids in assessment by the TSSC.

10. CRITERION C < back to Q10 > < back to Q11 >

Evidence that the threatening process adversely affects two or more listed threatened species (other than conservation dependent species) or two or more listed threatened ecological communities.

This criterion refers to species or ecological communities which are currently included in the EPBC Act threatened lists. In order to be adversely affecting a species or ecological community, the threatening process must currently occur where the species or ecological community occurs, and there must be evidence of a current effect.

An adverse effect can include mortality, injury, spread of disease, disturbance to breeding, feeding or roosting habits, habitat alteration or habitat destruction. The extent of impact which can be considered to be an adverse effect depends on the attributes of the population, ecological characteristics, and category in which the species/ecological community is listed. For example, if a species listed as Critically Endangered has less than 50 individuals remaining, then the death of a few individuals would probably constitute an adverse effect. Conversely, the same impact in a species listed as Vulnerable, which has a population of over 9000, would not constitute an adverse impact for the purpose of this criterion.

The conservation status categories relevant to this criterion are:

- for species: Extinct in the wild, Critically Endangered, Endangered, Vulnerable
- for ecological communities: Critically Endangered, Endangered, Vulnerable

The category Extinct for species is not included since there cannot be a current adverse effect on this species. However, if there is evidence of a previous adverse impact before the species became extinct, and this is highly relevant to current impacts of the threatening process, this evidence can also be included.

Some of the information provided in Criterion B will also be relevant here. In this case, it should be provided again in the context of this criterion, i.e. relating to adverse effects rather than population-level impacts.

The guidelines and criteria for listing species and ecological communities in each of these categories can be found here:

https://www.awe.gov.au/environment/biodiversity/threatened/nominations/forms-and-guidelines

Lists of EPBC Act listed threatened species and ecological communities can be found here: http://www.environment.gov.au/cgi-bin/sprat/public/publicthreatenedlist.pl?wanted=flora http://www.environment.gov.au/cgi-bin/sprat/public/publiclookupcommunities.pl

Justification for the inclusion of species or ecological communities in the nomination needs to be provided.

Although there are three criteria for listing a key threatening process, meeting any **one** of the criteria means a threatening process is eligible for listing as a key threatening process. However, provision of all available evidence against each criterion aids in assessment by the TSSC.

12. THREAT ABATEMENT < back to Q12>

Describe what actions can be taken to abate the threatening process. Link these to the components of the threatening process as described in question 4.

Please include a description of where these threat abatement actions are linked, where multiple actions may be needed to address the components of the threatening process, or where single threat abatement actions may address multiple components of the threatening process. The description of the actions should identify their scale (local, regional or national) and whether the action is focused on a single or multiple threatened species or ecological communities.

Articulate if there are any trade-offs that need to be considered in undertaking each particular threat abatement action (for example, the removal of a threatening weed may leave the site subject to soil erosion).

If any of these threat abatement actions are currently being undertaken, identify who is undertaking these activities and how successful the activities have been to date.

13. THREAT ABATEMENT PLAN AND ALTERNATIVES < back to Q13>

If a decision is made to list the threatening process being nominated as a key threatening process, the Minister must then make a decision on whether to have a threat abatement plan. In order to make that decision, the Minister must be satisfied the plan will be a feasible, effective and efficient way to abate the threatening process. Describe how the threat abatement actions provided in question 12 may be considered to be feasible, effective and efficient and how they would fit into a threat abatement plan. See part F for a description of feasibility, effectiveness and efficiency.

Describe alternative coordinating documents or measures that may assist in abating the threatening process. These could include (this list is not exhaustive):

- non-statutory threat abatement advice
- adopting a state/territory threat abatement plan (or equivalent)
- national action plan made with other governments or organisations

- regional action plan
- integrating actions into a recovery plan or conservation advice

Include a description of how the alternatives to a threat abatement plan link to the components of the threatening process as described in Q4. Articulate if there are any trade-offs that need to be considered in undertaking each particular alternative.

This section is not required for the nomination to be eligible for assessment under the EPBC Act. However any additional information provided by nominators can be used by the TSSC in preparing its advice to the Minister on the feasibility, effectiveness and efficiency of developing a threat abatement plan or any alternative action that may be taken, should the threatening process be listed.

23. DECLARATION

 dack to Q25>

In signing this nomination form, you agree to grant the Commonwealth of Australia (as represented by the Department of Agriculture, Water and the Environment) a perpetual, non-exclusive, worldwide, royalty-free licence to use, reproduce, publish, communicate and distribute the information described in the nomination form (i.e. information you have provided that is not referenced to other sources) in the Department's websites and publications and to promote those web sites and publications in any medium.

As the author of this information, you will be acknowledged in all publications and websites in which the information appears, in a manner consistent with the *Style Manual for Authors, Editors and Printers* (latest edition).