Notes for Moderators

Summary of Moderators Role

Moderators have expertise in the plants, animals and other wildlife of a particular area or taxonomic category. They confirm the identification of the wildlife from the images posted to the site, engage in on-line conversations that educate and seek further information from users and provide land managers with specific conservation advice.

Moderators are crucial to the veracity of the data produced on the NatureMapr platforms.

Preferably each sighting to a particular region will have at least three moderators who can confirm its identity, so that the identification task is shared, continues to function if a particular moderator takes a break, and there is a team of minds to consider problematic identifications.

Moderators for particular wildlife groups tend to operate as informal teams, with discussions and opinions on correct identifications often shared as comments on NatureMapr, so that we can all learn from the discussion.

Moderators are volunteers and should only participate at a level that is comfortable to them. It is best if they enjoy and see benefit in sharing their knowledge. If a moderation task is too onerous then site administrators should be informed and the moderator should only spend the time on moderation tasks that they feel comfortable providing.

Moderators on the NatureMapr platform includes internationally recognised experts down to passionate teenagers. The level of expertise held is not as important as a moderator only confirming the identification of those records for which they have a high level of certainty.

Moderator Tasks to choose from

Main tasks, priority 1

- 1. Identification of sightings
- 2. Informing, educating and encouraging users

Secondary task, priority 2

3. Adding a new species to the relevant category

Optional other jobs you can do if you wish

- 4. Maintenance of Species Pages, Field Guides and Photo Library
- 5. Mentoring fellow moderators

6. Highlighting significant sightings and management actions required for significant or important sightings.

7. Providing expertise into Citizen Science projects.

A National System

NatureMapr is an Australian national citizen science platform, with over 40 regional projects. The national and each regional project have their own front page, field guides, maps, sightings lists, etc. NatureMapr originated in Canberra as Canberra Nature Map covering Canberra and the Southern Tablelands and this region is still the major contributor.

You can look at the website from the national page: <u>https://naturemapr.org/</u>

or from the regional pages, such as Canberra & Southern Tablelands or Albury-Wodonga:

https://canberra.naturemapr.org/ or https://albury-wodonga.naturemapr.org/

Moderating is best done by local people with local knowledge. This ensures the highest degree of data accuracy. So, most moderating is done via the regional pages by local moderators. But the same actions can be done at the national level.

Taxonomy Structure

There are two levels of Taxonomy on the NatureMapr platform. There are the national lists of species which include all species on the platform. These are referred to as "Global" on the website. There are also the regional project lists which have a subset of species that occur in a particular region, such as Canberra & Southern Tablelands or the South Coast NSW.

I shall illustrate with Insects > Beetles > Scarab Beetles. First, click on "Species" on the top toolbar on the National page, then Insects, then Beetles, then Scarab Beetles:

https://naturemapr.org/

https://naturemapr.org/categories/guide/433

https://naturemapr.org/categories/guide/228?1=1

https://naturemapr.org/categories/guide/236?1=1

Go to the main page of Canberra Nature Map (Canberra & Southern Tablelands) and do the same:

https://canberra.naturemapr.org/

https://canberra.naturemapr.org/categories/guide/433

https://canberra.naturemapr.org/categories/guide/228?1=1

https://canberra.naturemapr.org/categories/guide/236?1=1

Every species has detail relevant to both the regional area project and the national level.

1. Identification of Sightings - the main task for moderators

Moderators tell the region administrator what category of life or area they would like to moderate. This can be a broad interest such as all plants to something more specialised such as bristle flies, or a reserve such as Mount Majura. Moderators are crucial to the veracity of the data produced on the NatureMapr platforms. Preferably each sighting to a region will have several moderators who can confirm its identity. Then the identification task is shared and continues to function if a particular person takes a break, and there is a team of people to consider problematic cases.

Every time someone loads a photograph belonging to the category or place of interest, an email asking for confirmation of identification will be sent to the moderator and all others who moderate that category or place.

Tools and features which a moderator can use:

Unidentified pages

For Categories, if there is a large number of emails, rather than trolling through a list of emails, moderators can go straight to the Unidentified page and click on the category of interest to see any unconfirmed records, say mammals:

Click on "Species" on the top toolbar, then click on "Unidentified sightings" on the dropdown list:

https://canberra.naturemapr.org/sightings/unidentified

https://canberra.naturemapr.org/sightings/unidentified/435?1=1

Email notifications and "Alerts" Page

Email notifications can be turned on & off by clicking on the person icon on the top toolbar of the region, then clicking on "Alert settings" and then by clicking on the button "Click to enable" or "Click to disable"

When email alert notifications are turned off, you can look at the "Alerts" Page instead. Look at the top toolbar, and click on the envelope icon. Then choose "Moderator alerts". There the sightings are all listed. Click on the species name and you go to the sighting page. Note that the entry for each sighting drops off the list after it has been viewed.

Species Selection method

There are several steps you may need to take to select a species for identification of a sighting.

1. Key in the name of the plant or animal in the box under the words "Identify this sighting". The name will appear on a dropdown list. Choose the name from the list. Then click on the button "Suggest" or "Confirm" (or "Verify"). Done. The "Undo" button can be used to cancel a suggestion or confirmation.

2. **OR.** You can use the category filter to find the name. For example, if you are after the Lady Beetle species "Coccinella transversalis", click on the word Insects, then Beetles, then Lady Beetles. Click on the words "Select a local species" and a dropdown list will appear. You can also key in the name of the beetle in the box under the word "Identification". The name will appear on a dropdown list.

3. If the species you are after does not appear then it may not be present for the region you are looking at, say the South Coast of NSW, then there is an extra step you can take.

4. Click on the button "?Can't find it". Then click on the words "Select a global species". Select from the dropdown list or key in the name you are after.

5. If the species is not present on the global list then click on the button "?Still can't find it". Then you can key in the name of the species, and click on the button "Suggest new species".

Comments

To converse with the reporter of a sighting the "Comments" option can be used. This could be a query about the photo content or some explanation about your decision making. Just type in the box under the heading "Comments" what you wish to say. Note that a **conversation circle** is created which include the reporter of the sighting, the moderator and anyone else who has placed a comment on the sighting. Each time a comment is added to the sighting an email is sent to all persons in the conversation circle.

By using the @username option an email is sent to that user, and you can bring the sighting to the attention of the person with that username.

Inconclusive / Unable to identify

If the photos or audio in the sighting are not good enough to be able to identify the subject, then you can use the Inconclusive option. Click on the tab for "Inconclusive", type in your reason for doing so and click on the "Reject" button.

Sightings without evidence

Sightings without evidence, that is without photos or an audio file are permitted. This should not be encouraged since we are a scientific website and want to guarantee the accuracy of our data. However, they can be accepted if the reporter is a known person with expertise in the particular category or if they are able to provide a good explanation of their find. Otherwise they can be rejected as inconclusive.

CarbonAl

CarbonAI is a machine learning based (non human) moderator. It is an artificial intelligence "robot" that uses image recognition technology to identify the subjects of our sightings. So it will make a suggestion where it has a degree of certainty about what it sees. For some species that it is very familiar with it will confirm as well. If you disagree with its ID you can override or undo its ID. Read all about it, the rules that govern its behaviour, and the categories it covers on its profile page at this address: https://naturemapr.org/users/19253

Collections and Flagged Sightings

Every member of NatureMapr has their own private collection called "username's Flagged sightings" and can create other private collections. Click on the person icon on the toolbar, then "My collections". To create a new one, click on the button "Add collection" and fill in the details. To see all public Collections, click on "Community" on the top toolbar, then click on "Collections".

To add a sighting to a collection, just click on the little Star icon at the top of the page, above the main photograph. Then select the relevant collection form the dropdown list. Click on the button "Add to Collection". The star will turn totally yellow indicating it is part of a collection. To remove the sighting from your list, click on the yellow star icon & it will change back to being white again.

Messaging a user privately

Sometimes a moderator may wish to have a discussion with a reporter that is best made privately. To Message a user, click on their username in the sighting, then click on the "Message" button that appears on the users page. To view previous Messages, click on the "Envelope" icon on the toolbar, then Messages.

Original Photos

If the images in a sighting don't give enough clear detail, then you can click on the icon in the left bottom corner of any image to see the original photo.

2. Informing, educating and encouraging users

NatureMapr aims to be a friendly and participative way for gathering and sharing wildlife knowledge. It seeks to increase both individual and broader community understanding of our plants, animals and other wildlife, leading to more informed decisions and better conservation outcomes. Moderators are key to the fulfilment of these outcomes. The confirmation of a species identification not only tells the recorder what that species is, but also builds on the shared knowledge of that species distribution and abundance across the region, and adds to the species lists for particular reserves, localities or private land holdings.

If this is all you have time to do as a moderator that is still a fantastic contribution, and thankyou. But if you wish, there are ways you can help with informing and encouraging people, creating friendly relations and building community knowledge.

You can use the comments box on a sighting to encourage and engage in online conversations with interested people. People should know that they are not judged if they make a mistake, but are supported. Giving an explanation of a correction is a way of spreading your expertise. Furthermore, adding interesting facts boost people's interest. Giving compliments such as "great photo" or "this is the first record of this species in Victoria" can also be very beneficial.

"Liking" a sighting. A feature of encouragement that is open to all users is clicking on the thumbs up image above the first photo submitted in a record. The number beside the thumbs up icon is the number of users that have "liked" that image.

3. Adding a new species to the taxonomy

We are a growing platform and at times a sighting comes in of a species that has not been recorded previously. If it is not on the species lists for the reporting region, and not on the national (ie global) lists then we need to add it to the relevant category or subcategory. This action is available for category moderators but **not for location moderators**.

Assume we are looking at a new species that has been reported on Canberra Nature Map (Canberra & Southern Tablelands), but this method applies to all regions and the national level as well. Let us suppose it is a new species of Leaf Beetle.

First click on "Species" on the top Toolbar, then choose the relevant category, which is "Insects". On the Insects page you will see all the Insect subcategories listed. Next, click on "Leaf Beetles". You are now looking at the Leaf Beetles page. If you are a moderator for beetles you will be able to see a button with the words "Add species". Click on this button. Otherwise, if you are a moderator for fungi, or some other group, look for the category and subcategory that you are going to add a species to, and click on the "Add species" button.

You will now see a form to fill out to provide the details of the new species. You will be asked for a scientific and common name, a reference page, and to select from a drop down menu for sensitivity level, conservation level and level of invasiveness.

Scientific Name is essential. It should be consistent with that of the *Australian Faunal Directory* or *Australian Plant Census.*

Note that as a general rule we only add a new species to the taxonomy when it is reported. Otherwise the field guides and dropdown lists get unnecessarily long and the field guides have no images for the new species. Also, take care when adding a new species to not add a name for a species which is already present and make sure the spelling is correct. Duplicate species names are a problem. If you see them notify the administrators.

Common Name if possible. Many species have a common name but others don't. For those that don't, just giving a generic name is helpful, in this case just "Leaf Beetle".

External Info URL if possible. It is valuable to have a good reference page providing information about the species. This can be any page from the internet, such as one from Atlas of Living Australia, or PlantNet, or other reliable source.

Sensitivity Level (Not sensitive, Sensitive, Highly Sensitive)

The sensitivity level determines who can see a particular record. So restrictions apply for those species for which there is concern that providing locational information may allow poaching (e.g orchid or rare butterfly locations) or where there is another reason to hide the location (e.g. magic mushrooms). Most species locations are visible to all and are classified as *Not sensitive*. If they are classified as *Sensitive*, then the reserve or place in which they occur will be indicated, but not the GPS coordinates. If they are *Highly Sensitive*, then the reserve or place as well as the GPS coordinates will not be seen by the public.

Conservation Level

<u>Critically Endangered, Endangered or Vulnerable</u> – These three levels are for those species that have been listed as such by state or federal authorities. These will vary from one state to another.

<u>Very rare/threatened</u> – a species that may be listed as threatened, but has yet to be clarified. It may also be one that is not yet listed but would meet the listing criteria.

<u>*Rare or Uncommon Native*</u> - a species which is seen only occasionally in the region, or where there are very few known locations and special conservation attention is warranted.

Local Native – this means the species is indigenous to the local region.

<u>Non-local Native</u> – a species that is native to Australia but not indigenous to the local region.

<u>Vagrant Native</u> – a native species which does not occur in the local region, but has turned up through misadventure.

Migratory – a migrant that comes from outside the local area, e.g. the Koel to Canberra.

<u>Cosmopolitan</u> – the species is widespread naturally and has a global distribution.

Exotic – a species not native to Australia.

Invasiveness Level

Level of invasiveness is used to convey to land managers just how serious a weed or pest a species is and the priority for managing it.

Non-invasive or negligible – not a pest or weed.

Minor Weed or Pest – an exotic species but not a problem.

<u>Medium Weed or Pest</u> – the species can become problematic in certain circumstances and should be controlled.

Major Weed or Pest - control of this species should have priority.

Severe Weed or Pest - control of this species should be given a very high priority.

Description. This section can be used to add extra comments or internet references.

After all that information is keyed in, click on the button "Add species" at the bottom of the page and a new Species page is created.

4. Maintenance of Species Pages, Field Guides & Photo Library

Edit Species page

A Species page may need to be amended at times when errors occur or when information changes. Go to the Species page, click on the "Edit" button, and change the details on the form. Moderators will generally only be able to amend details for the local region.

Maintaining the Photo Library

Four images are used for every species in the field guides. Moderators should choose the best four images, which ideally display the distinctive features useful in identifying the species and differences. For insects this might be male and females and life stage such as egg, larvae and adult. For plants it might be flower, leaves and fruits. Preference should be given to clear, interesting and beautiful images.

Note that when a new species is created the system automatically picks up the first four images it gets from sightings and puts them in the 4 sample image places. These may not be the best quality but they can be improved on.

How to update the sample images:

When a category moderator views a sighting, on each image they should see a small icon and the words "**sample images**" in the top right of a reported image. If you want to use the image as one of the four "best" images, click on this icon. Then choose one of the 4 places in which to put it. The image on the left is the main image, and is prominent on the species page and should be the most "typical" image. The **caption box** can be left blank or utilized to clarify different aspects of the animal or plant. For example, you can specify male, female and juvenile for some species.

To remove a photo that is incorrect or poor, look at the species page. Click on Edit. You will see the 4 images on that page, with a tiny trash can icon in the top right corner of each image. Click on that icon then "Update species". Note that it may take a few minutes or more before your updates are visible on the species page.

5. Mentoring fellow moderators

A member can make progress using NatureMapr, from someone with an interest in wildlife, to become a naturalist with good local knowledge, and onto being an expert who can moderate the sightings of others. Experienced moderators can help in this task by mentoring a new moderator within a certain category, guiding them and supporting them as they learn. This is a good way to help spread the identification workload.

Moderators should also feel that they are part of a team and can ask questions of each other to help clarify problematic sightings. Using the comments box to raise questions with each other enables others to listen in and learn from the conversation. Private conversations can go through the Message utility.

6. Significant sightings, and management actions

Significant sightings are those that are of special interest. Examples are (1) a new location of a rare or threatened species, (2) the first sighting of a new species for the local region or NatureMapr, (3) or a new location of a noxious weed that needs to be controlled.

If a sighting requires particular management (e.g. it is susceptible to grazing or exclusion from fire, or it is a high risk invasive species that should be a priority to control, etc) then this information can be placed in the comments.

Often the moderators will be the only ones with the knowledge to recognise that a particular sighting is of conservation significance. To mark a sighting as significant, click on the button "Significant", then key in the reason for the decision and click on the "Save" button.

Note that making a sighting Significant adds a point to the member's number of Significant sightings and all significant sightings are saved in a list. On the front page, click on the heading "Significant sightings" and visit this page where all significant sightings are recorded:

https://canberra.naturemapr.org/sightings/significant

7. Featuring sightings

Featured sightings are generally for sightings that are not significant but which have other qualities, such as exceptionally good photos, or which show an interesting behaviour, or an unusual revelation about the subject, or unusual sightings of common things, or sightings which are amusing/funny. To Feature a sighting, click on the button marked "Feature" and the sighting will be displayed at the top of the page. Featuring a sighting gives immediate fame, but a Significant sighting adds to the long term credit.

8. Facilitating Citizen Science projects

Moderators can provide important quality assurance into Citizen Science projects where the strength of having hundreds of eyes out there looking for particular features or behaviour can be filtered through the expertise of moderators. Again moderator involvement is voluntary. Some examples are:

1. The impact of fire on Black Mountain Orchids, using repeated sightings at 140 points stratified by fire history.

2. A study of the endangered Small-ant Blue Butterfly, involving the colonies of Coconut Ants with which the butterfly has an obligate relationship.

3. Research into the behaviour, breeding and feeding habits of the Gang Gang Cockatoo. This involved many sightings of the birds nesting, feeding and travelling.

4. A study of insect pollinators across Canberra's urban landscape, looking at all insects within a 50m radius of previously defined points.

Other Information

Moderator work flowchart

Visit the following page entitled "Information for moderators":

https://canberra.naturemapr.org/content/moderators

Relationship to iNaturalist

iNaturalist is largely sponsored by National Geographic and the California Academy of Sciences. It began in 2014 and is now a major global nature recording database. It is similar to NatureMapr but there doesn't seem to be a culture of co-operation, connection to local community or on-ground action. Both NatureMapr and iNaturalist provide data to the Atlas of Living Australia.

A major difference is that NatureMapr has expert moderators to confirm identification whereas anybody can confirm on iNaturalist. iNaturalist is complementary to rather than a competitor to NatureMapr, and many users contribute to both platforms. Many members consider NatureMapr easier to use with field guides for the local areas and the moderation process is more reliable and quicker. iNaturalist does have a pool of specialist identifiers who can be of assistance, and moderators can get help from them and other sources if they wish.

Taxonomy Structures

To understand the some of the more complex taxonomy structures in place on NatureMapr, view the Species Guide pages provided. Click on "Community" the top toolbar on any Canberra Nature Map page. Then click on:

"Species Guide - Invertebrates" or "Species Guide - Plants, Fungi, Lichens, Mosses etc"

Copies of this document

This document is available only to moderators and administrators. Click on Community on the top toolbar, then Moderators. Then click on "Moderator how to guide" to download the PDF file.

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