

PRELIMINARY PRIORITY BIODIVERSITY & ACTION GROUPS FOR THE NZ BIODIVERSITY TOOL^a

Thank you for participating in our online prioritisation exercise^b and promoting our shorter survey to cross-check farmer and non-farmer biodiversity interests. Based on your feedback, we make the following recommendations:

- ❖ 8 biodiversity groups are top priorities for inclusion in our prototype tool development.



Native bush plants



Native wetland and aquatic plants



Native grassland plants



Native forest birds



Native birds of open habitats



Wetland birds



Soil life



Beneficial insects

- ❖ These broad management action groups are prioritised for discussion at our workshop in February:

- Natural habitat provision, protection and management
- Waterway management and buffers
- Soil integrity and quality
- Control predators, weeds and competitors
- Wildlife habitat and resources provision
- Woody vegetation provision
- Farm product diversity
- Agrichemical use

Please let us know if you have any major concerns about these priorities before 20 Dec 2017. There will be an opportunity for further discussion at the workshop.

WORKSHOP

26 Feb 2018

There will be an opportunity for a more in-depth discussion of the results at our prioritisation workshop in Wellington. We will focus the bulk of our discussion on selecting specific management actions to include in the prototype tool from the highest-priority action groups.

We can contribute up to \$300 towards your travel costs. Please just let us know if you need this support.

SAVE THE DATE!



A staff member from Dairy NZ was also involved

^a Citation: MacLeod CJ, Brandt AJ, Collins K, Dicks LV. 2017. Preliminary priority biodiversity and action groups for the NZ biodiversity tool. NZ Sustainability Dashboard Research Summary 17/15. p.5

^b Our prioritisation exercise aims to provide an overview of what will be useful and important to a range of stakeholders interested in biodiversity, rather than to characterise the views of individual organisations. The online exercise drew on the experience of individuals from certain organisations; the results reflect those responses, rather than the policy or perspective of their organisation.

For more information: <http://www.nzdashboard.org.nz/biodiversity-assessment-tool>

TIMELINE AND PROCESS FOR BUILDING A PROTOTYPE TOOL

COMPLETED - online surveys & prioritisation exercise



NOW – Review top priorities by email
FEBRUARY - Further discussion & consensus at prioritisation workshop



Management actions > B > C > A	Biodiversity groups ❖ C ❖ A ❖ B
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Specialist judgement & latest research



Design easy-to-use action checklist

CHECKLIST

WHAT MANAGEMENT ACTIONS?

FENCING

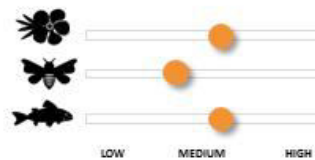
SPRAYING

WEEDING

PLANTING



Scoring how effective farm actions are for priority biodiversity groups



APRIL-JUNE - User testing & feedback

Broad relevance to tell New Zealand's biodiversity story

We believe the preliminary priority biodiversity groups identified will be relevant and useful to a broad range of NZ stakeholders because they encompass:

- 6 of the 7 highest-ranked biodiversity groups from our online prioritisation exercise
- ≥ 5 top priority groups per stakeholder role (industry, government, non-government, consultant), also based on our online prioritisation exercise
- 7 biodiversity groups most commonly selected by farmers and ≥ 5 of the top 6 groups for farmers in each sector (arable, kiwifruit, wine, organic, dairy, deer, sheep-beef, dairy-sheep-beef)
- 8 of the 9 biodiversity groups most often selected by non-farmers and ≥ 4 of the top 6 groups selected by each role (industry, government, non-government, consultant, researcher, unspecified)

A wide range of biodiversity interests are also reflected in the top 8 priorities:

- Several taxa groups (birds, plants, invertebrates and microorganisms)
- A variety of habitat types (forest/bush, aquatic/wetlands, open and production areas)
- Different biodiversity values and goals, including:
 - Native species with conservation value
 - Functional agrobiodiversity that supports agricultural production
 - Species that potentially hold value for cultural reasons or recreational use

Focussed development of management actions to include in tool

We believe the preliminary priority management action groups will be relevant and useful to a broad range of NZ stakeholders because they include:

- The 2 highest-ranked action groups from our prioritisation exercise as well as farmer and non-farmer respondents of the shorter survey
- ≥ 3 of the top priority groups per stakeholder role from the prioritisation exercise
- ≥ 4 of the top priority groups among farmers in each sector
- ≥ 5 of the top priority groups among non-farmers in each stakeholder role

We recognise the importance of developing a biodiversity assessment tool that is relevant to NZ's ecology and accessible to NZ farmers and growers. By focussing workshop discussion on these top priority management action groups, we aim to achieve the following goals:

- Select specific management actions from these groups that are relevant to a range of agricultural sectors and stakeholder groups
- Structure the actions to be relevant to on-the-ground implementation, useful in reporting and meaningful to NZ ecology
- Identify stakeholder champions willing to help translate key actions and make sure they are readily understood by tool users

Our next steps to prepare for the prioritisation workshop (26 Feb 2018)

We will provide more detailed results from the online prioritisation exercise and shorter survey to help guide discussion. To demonstrate how the management action list generated by the workshop will be used in the next steps of tool development, we will provide a few worked examples and summary of evidence available (from the Conservation Evidence database) for a subset of the 17 high priority management action groups.^c

^c <http://www.nzdashboard.org.nz/biodiversity-assessment-tool.html>

PRIORITISING RELEVANT BIODIVERSITY GROUPS FOR NZ FARMS

Eighteen biodiversity groups were prioritised for inclusion in the prototype tool; these recommendations are based on a preliminary analysis of:

1. **A prioritisation exercise** completed by 22 stakeholder advisors who ranked the 18 biodiversity groups according to their reporting needs or common expert and policy recommendations.
 - a. **Overall rank:** In order of median rank across all respondents
 - b. **Priorities by roles:** Biodiversity group was included in the top 6 priorities by specified role (which were classified as industry, government, NGO or consultants)
2. **A cross-checking survey** of 109 farmers/growers and 80 non-farmers (who selected up to 5 biodiversity groups they were interested in enhancing on farms). Farmers/growers were grouped into 9 sectors (arable, kiwifruit, wine, organic, dairy, deer, sheep-beef, dairy-sheep-beef and other – which included lifestyle blocks, summer fruit, pigs; note that some respondents were in multiple sector categories). Non-farmers were grouped into 6 roles (industry, government, NGO, consultant, researcher and unspecified)
 - a. **Overall rank:** Biodiversity groups in order of median percentage selection by respondents across all sectors (n = 9) or all roles (n = 6)
 - b. **Priorities by sectors or roles:** Percentage of sectors (n = 9) or roles (n = 6) where the biodiversity group was among the top 6 most commonly selected

TOP PRIORITY BIODIVERSITY GROUPS	PRIORITISATION EXERCISE					CROSS-CHECKING SURVEY			
	STAKEHOLDER ADVISORS (n = 22)					FARMER (n = 109)	NON-FARMER (n = 80)		
	Overall rank	Priorities by roles				Overall rank	Priority by sectors	Overall rank	Priorities by roles
		Industry	Government	NGO	Consultants				
Native bush plants	1	•	•	•	•	1	100%	1	83%
Native wetland and aquatic plants	2	•	•	•	•	6	55%	2	83%
Native grassland plants	3	•	•	•	•	12	11%	5	50%
Native forest birds	4		•		•	4	100%	3	83%
Native birds of open habitats	5	•			•	5	66%	8	33%
Wetland birds	6		•		•	7	55%	4	66%
Soil life	10	•			•	2	100%	9	50%
Beneficial insects	11	•				3	77%	6	50%

MEDIUM PRIORITIES	LOW PRIORITIES
Discuss at prioritisation workshop (Feb 2018)	Potentially add to address specific stakeholder needs in the future
Native conservation invertebrates	Bats
Native aquatic animals	Introduced grassland plants
Lizards and geckos	Introduced woody plants
Livestock, crop, and variety	Introduced birds of open habitats
	Introduced forest birds
	Game fish

PRIORITISING RELEVANT MANAGEMENT ACTION GROUPS FOR NZ FARMS

Twenty-four management action groups were prioritised to help focus our discussion at the prioritisation workshop in February. Recommendations are based on a preliminary analysis of:

1. **A prioritisation exercise** completed by 22 stakeholder advisors who ranked the 24 management actions according to their reporting needs or common expert and policy recommendations:
 - a. **Overall rank:** Action groups were ordered based on median ranks across all respondents
 - b. **Priorities by roles:** Black circles indicate the top 6 action groups (based on median ranks) for each role (industry, government, NGO or consultants); open circles indicate where an action group was ranked highly by subset of respondents (as determined by the upper inter-quantile) but it was not included in the top 6 priorities for the sector.
2. **A cross-checking survey** of 91 farmers/growers and 58 non-farmers who listed up to 10 actions they implemented or plan to implement to enhance biodiversity on their farm.
 - a. **Overall rank:** Action groups in order of median percentage selected by respondents across all sectors (n = 9) or all roles (n = 6)
 - b. **Priorities by sectors or roles:** Percentage of sectors (n = 9) or roles (n = 6) where the management category was among the top 6 most commonly listed.

MANAGEMENT ACTION GROUPS

Recommended for further discussion at February workshop

	PRIORITISATION EXERCISE					CROSS-CHECKING SURVEY			
	STAKEHOLDER ADVISORS (n = 22)					FARMER (n = 91)		NON-FARMER (n = 58)	
	Overall rank	Industry	Government	NGO	Consultants	Overall rank	Sector priorities	Overall rank	Role priorities
Top priorities	Protect natural habitat	1	●	●	●	7	44%	4	100%
	Waterway buffers	2	●	●	●	3	100%	3	100%
	Provide natural habitat	7	●	●	○	2	100%	2	100%
	Waterway management	10	○	○	○	1	100%	1	100%
	Soil integrity and quality	6	●	●	○	4	77%	8	50%
	Control predators	8	●	○	○	6	55%	5	100%
Medium priorities	Manage natural habitat	3	○	○	○				
	Control weeds	4	●	○	○	13	11%	7	33%
	Woody vegetation	20	○	○	○	5	100%	6	66%
	Farm product diversity	19	○	○	○	8	55%	12	16%
	Reduce agrichemical use	16	○	○	○	9	44%	9	33%
	Provide wildlife resources	17	○	○	○	10	22%	13	
	Control competitors	9	●	○	○				
	Agro-biodiversity for biocontrol	15	○	○	○				
	Reduce agrichemical non-targets	11	○	○	○				
	Provide wildlife habitat	5	○	○	○	12	11%	14	
Control ecosystem engineers	14	○	○	○					

Other action groups considered low priority: Beneficial mowing or grazing; reduce fertilizer use; protect rare species; protect reproductive habitat; artificial habitat provision; reduce direct mortality; safe areas for wildlife.