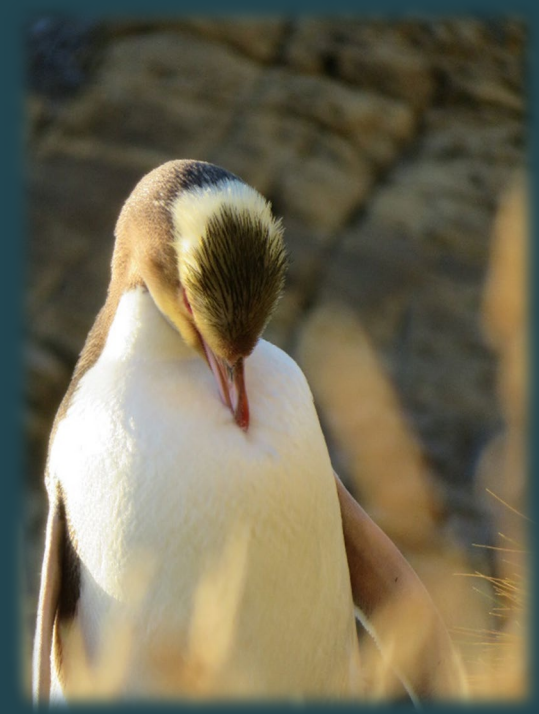
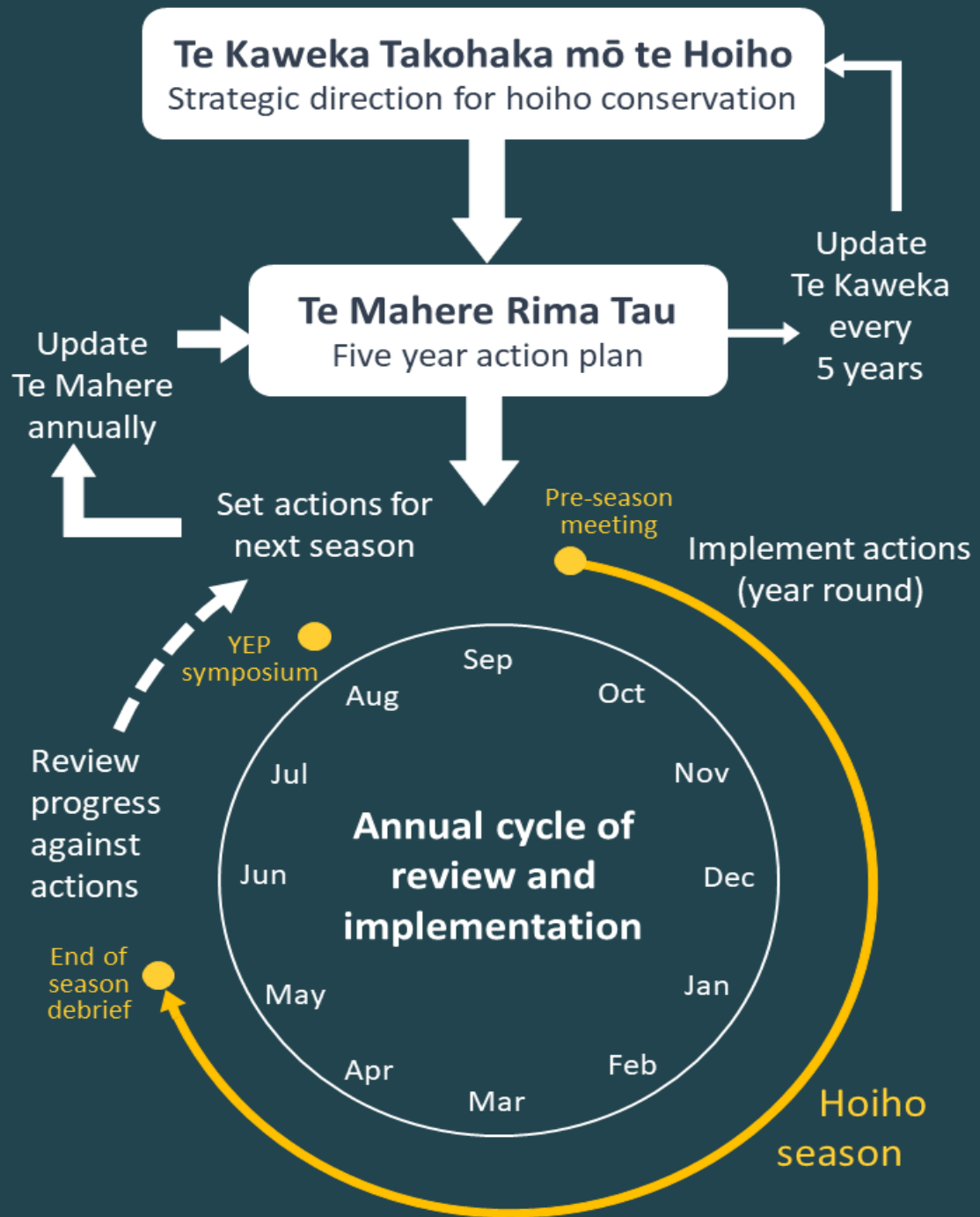


Progress on Te Mahere Rima Tau in 2020/21

A collective approach supported by the mahi
of numerous individuals and organisations

Presented by Bruce McKinlay and Trudi Webster
on behalf of the Hoiho Technical Group



Purpose

Progress on actions in Te Mahere in 2020/21
(July 2020 to June 2021)



Complexity of actions and tracking

Multiple projects

Multiple organisations / individuals

Summary of what has happened



Strategic Priority 1

Intervene and care for sick, injured or underweight hoiho to improve survival and breeding success.

Action 1a Rehab system is funded and resourced (E)

- Funding & plan for rehab facility at Mamaku Point, Rakiura
- Mainland rehab contingency planning
- Support of organisations (\$\$, equipment)

Action 1b Expanded programme of intervention (E)

- Additional 1.5 FTE rangers provided
- Planning for increased monitoring on Rakiura

Action 1c Assess survival & breeding success after treatment (E)

- End of season debrief and reports
- Analysis of data (uplifted birds, release/success rates, fosters)





Strategic Priority 2

Minimise the impact of disease and unexplained mortality events on hoiho

Action 2a Annually review and implement diphtheria protocol (E)

- Last review July 2020
- End of season debrief (31 May)
- Planned development of chick management protocol

Action 2b Annually review & implement malaria action plan (E)

- Last review Oct 2020
- End of season debrief (31 May)
- Mosquito proofing info provided to rehab facility

Action 2c Annually review and implement unexplained mortality response plan (E)

- (Last review Sept 2019)
- End of season debrief (31 May)
- Update planned: additional Appendix, updated contacts

Action 2d Review hoiho necropsy results (E)

- Review commissioned and undertaken (Auckland Zoo)
- Preliminary results presented (April 2020)



Strategic Priority 2 (continued)

Minimise the impact of disease and unexplained mortality events on hoiho.

Action 2e Annually fund and send birds for necropsy & respond to novel disease (E)

- Contract with Massey University
- Epidemiologist to investigate lung congestion

Action 2f Commission research on malaria (E)

- Funded research on spatial and temporal distribution: mosquitoes, passerines & hoiho (Uni of Otago)
- Seed funded research to develop malaria warning system (Landcare Research)

Action 2g Commission research to characterise disease status (E)

- Samples & support provided for microbiome research (Uni of Otago)
- Hoiho pathogen discovery postdoc planned (Massey / Otago)
- Pilot study planning (July 2021): health screening of breeding females

Action 2h Commission research into unexplained mortality (E)

- Not started (awaiting feedback from 2d: necropsy review)



Strategic Priority 3

Follow appropriate kawa and tikaka for treatment of all hoiho

Action 3a Develop tikaka for handling and care of hoiho (E)

- Planned development of new chick management protocol
- Tikaka protocol under discussion

Action 3b Dispensation process to enable fishers to hold bycaught hoiho (E)

- Dispensation submitted to Permissions Planning & Land at DOC



Strategic Priority 4

Investigate and develop additional intervention options to improve breeding success and survival

Action 4a Investigate intervention options to improve breeding success and survival (E)

- Fostering and hospital treatment developed & implemented (as part of diphtheria protocol)
- Plan to develop chick management protocol (to including egg management)



Strategic Priority 5

Ensure monitoring programmes, including cultural monitoring tools, provide quality information to support management decisions

Action 5a Ensure knowledge of northern population is complete by developing monitoring programme (E)

- Monitoring protocol for 2020/21 (as pre-season meeting)
- Increased efforts to monitor more remote sites (e.g. Green Is, Rakiura)
- Submission to inform update for NZ Threat Classification
- Release of transponder SOP

Action 5b Plan and commence full island wide survey of Rakiura (E)

- Develop objectives and plans
- Completion of survey in Oct/Nov 2020 (comparable with 2008)
- Whanau led surveys of Tītī Islands

Action 5c Provide knowledge about status and health of southern population by developing monitoring programme (E)

- Commissioned review of Subantarctic monitoring & future objectives
- Campbell Island draft report completed
- Work on Southern population disrupted
- Submission to inform update for NZ Threat Classification

Action 5c Identify and use cultural monitoring to enhance management (E)

- Not started

Strategic Priority 6

Ensure bycatch does not threaten hoiho

Action 6a Implement and incentivise practices that eliminate bycatch (E)

- Liaison with fishers & industry (including plans for workshop)
- Protected species mitigation plans & codes of practice on vessels
- Mitigation standards released (April 2021)
- Fisheries Liaison programme officer (trawl & setnet)

Action 6b Ensure observer coverage of at least 50% on setnet vessels (E)

- Proposed levels of coverage ECSI: 30%, SCSI 65%
- Electronic monitoring industry trial undertaken and rollout planned
- Project contracted to characterise fishing activity overlap with hoiho

Action 6c Build positive relationships and work together to solve bycatch and other fisheries issues (E)

- Ongoing liaison with members of the group
- (Last meeting: July 2018)
- Planning for workshop (in Aug 2021)

Action 6d Improve the mechanism for providing info on bycaught hoiho (E)

- Fine scale Geographical Position Reporting on vessels & electronic reporting to facilitate this
- Daily alert system if protected species are caught

Strategic Priority 6 continued

Ensure bycatch does not threaten hoiho

Action 6e Investigate impacts and opportunities of transitioning fisheries from set netting (E)

- Special permits enabled for spearfishing (butterfish) to reduce setnet effort
- Planning of workshop with fishers and industry (Aug 2021)

Action 6f Update spatially explicit fisheries risk assessment (SEFRA) to provide reliable estimates (E)

- Up to date hoiho population info provided (May 2020) for Aquatic Environment Biodiversity Review (AEBR)
- Project contracted to characterise fishing activity overlap with hoiho

Action 6g Progress proposed mitigation for setnet fisheries around Rakiura and offshore islands (E)

- Fisheries circular released for public comment (Jan 2020) and discussions followed
- Instead established voluntary agreement (including trials of body cameras streaming video to observers on main vessel)

Strategic Priority 7

Protect and support marine habitats and ecosystems that nourish hoiho

Action 7a Determine which marine protection measures are appropriate to protect hoiho habitat (E)

- SEMP process: submissions on preferred network, advice to Ministers.
- Contributions to ORC /ES process to identify Significant Ecological Areas
- DOC National spatial planning project

Action 7b Commission a marine spatial planning exercise in hoiho habitat (E)

- Contributions to ORC/ES significant ecological area planning process
- DOC National spatial planning project
- Collate hoiho info for GIS layers

Action 7c Contribute to policy instruments relating to climate change (E)

- Government policy development under way
- Submission on Climate Change Commission advice to Government

Action 7d Commission research to investigate foraging ecology of hoiho (E)

- Final report released mainland hoiho tracking (Eudyptes)
- CSP project completed on Rakiura hoiho tracking (Eudyptes)
- MSc underway: foraging strategies around Rakiura (Uni of Otago)
- PhD underway: marine distribution of hoiho (Uni of Otago)

Strategic Priority 7 continued

Protect and support marine habitats and ecosystems that nourish hoiho

Action 7e Commission research to examine spatial & temporal patterns in diet (E)

- Faecal samples collected - mainland & Rakiura (several groups)
- PhD underway: diet of hoiho (Uni of Otago)
- Stable isotope analysis write up (Uni of Otago & others)
- MSc completed: stable isotope analysis - Rakiura (Auckland Uni)

Action 7f Commission research to examine spatial & temporal patterns in stress (E)

- MSc completed: stress in hoiho Rakiura (Auckland Uni)

Action 7g Commission research to examine the physical parameters associated hoiho habitat (E)

- Study commissioned to investigate area of foraging area overlap (Aramoana & Tavora) (Uni of Otago)

Action 7h Advocate for protection of hoiho and their habitat in relation to marine activities (E)

- Work on various marine resource consent applications
- Submission on NZ Biodiversity Strategy
- ORC Regional Policy Statement review and working group
- Feedback on Open Ocean Aquaculture Guidelines for Seabirds

Strategic Priority 8

Ensure marine pollution, disturbance and noise do not threaten hoiho

Action 8a Ensure oil spill response plans account for hoiho and prepare for emergencies (E)

- (Latest review of ORC response plan: April 2019)

Action 8b Understand, avoid and mitigate impacts of marine pollution, disturbance and noise on hoiho (E)

- Relationship building with DCC 3 Waters Wastewater liaison group
- Review commissioned on impacts of sedimentation on seabirds (Northern NZ Seabird Trust)

Action 8c Promote hoiho conservation & develop marine monitoring frameworks with Regional Government (E)

- Liaison with marine scientists at ORC and ES
- Relationship building with CDC, SDC and DCC wastewater liaison group
- New marine monitoring buoy planned off Otago coast (ORC)



Strategic Priority 9

Reduce the impact of tourism and recreation activities to ensure they do not threaten hoiho

Action 9a Investigate mechanisms to manage visitors at priority sites (E)

- Trialled mechanisms: long-term plan for track alignment (Sandfly)
- Progressed project to formalise walking track & install barrier (Katiki)
- Increase presence of summer rangers, kaitiaki ranger, volunteers & community groups

Action 9b Move moulting and other at risk birds to safer areas (E)

- Delivered effectively by several organisations
- Increased effort to identify moulters
- Reports received via DOC hotline & other organisations

Action 9c Educate visitors about appropriate tikaka / behaviour (E)

- Advocacy by summer rangers, kaitiaki ranger, and volunteers
- Press releases and social media (different groups)
- Development of communications plan
- Designed & printed new interpretation sign (Katiki)

Action 9d Collect information on visitor numbers and pressure points to assess management mechanisms (H)

- Visitor counters collecting data
- Reports from Summer rangers
- New DOC compliance App - incident recording and compliance



Strategic Priority 10

Eliminate mortality from dogs

Action 10a Improve enforcement of dog bylaws at hoiho sites (E)

- Development of new DOC Compliance App to aid enforcement & improve processes
- Liaison with DCC

Action 10b Commission a review of the effectiveness of tools to reduce dog impacts and design improved tools (E)

- Revitalisation of *Lead the Way Programme* around dog interactions on beaches
- Student project on *Lead the Way* expansion
- DOC social science team approached (no capacity)



Strategic Priority 11

Provide opportunities for Kai Tahu to exercise kaiakitaka

Action 11a Identify opportunities for Kāi tahu to be kaitiaki in relation to visitor management (M)

- Kaitiaki ranger (Katiki)
- Interpretation panel designed by Moeraki runaka



Strategic Priority 12

Minimise stress and disturbance from research and management activities

Action 12a Support disturbance for research and management only when there is direct benefit for hoiho (H)

- Managed through Wildlife Act permit process for research and conservation organisations
- Operational management through protocols & SOPs



Strategic Priority 13

Effectively control mammalian land-based predators at hoiho breeding sites

Action 13a Support the Maukahuka Project to eradicate pigs, cats and mice in the Auckland Islands (E)

- (Feasibility trials undertaken in 2019/20).
- Currently deferred

Action 13b Reduce pig numbers to minimise impact on hoiho in the Northern population (E)

- Monthly checks and follow up control in North Otago
- Planning undertaken for control in the Catlins

Action 13c Assess spatial and temporal predator control coverage (E)

- Collation of trap locations to enable assessment
- Additional trap coverage (e.g. Otapahi, Long Pt & planned at Papanui)

Action 13d Support Predator Free Rakiura goals to eliminate possums, rats, cats and hedgehogs (H)

- Scoping work completed
- Governance Group established
- Funding for feasibility design



Strategic Priority 13

Effectively control mammalian land-based predators at hoiho breeding sites

Action 13e Leverage funding and knowledge to increase efficiency via connection with predator control initiatives (H)

- Liaison and cooperation with Predator free Dunedin, PF2050, Halo Project and OPBG
- Presentation on best practice and improved effectiveness for trapping (Predator Free)

Action 13f Implement management tools from kaitiaki to inform predator control planning (H)

- Not started

Action 13g Identify employment opportunities for Kāi Tahu in predator control (M)

- Not started



Strategic Priority 14

Provide habitat on land that protects hoiho and buffers against natural events and other impacts

Action 14a Identify at risk areas within hoiho habitat and implement land-based management tools (E)

- Continuous effort & site based management
- E.g. firebreaks, stabilising cliffs, ensuring tracks in eroding dunes, planting to reduce run-off, removal of pooled water
- Contribute to literature review of practical management actions for seabirds affected by climate change

Action 14b Optimise hoiho habitat to ensure adequate provision for hoiho requirements (E)

- Continuous effort & site based management
- E.g. tracks for hoiho, nest boxes, shade, flood protection

Action 14c Ensure public conservation land prioritises hoiho conservation (H)

- Not started

Action 14d Engage with landowners to ensure hoiho habitat has statutory protection (H)

- Not started



Strategic Priority 15

Protect hoiho and habitat from the negative effects of stock and browsers

Action 15a Exclude large stock from hoiho habitat (E)

- Ongoing discussions with landowners
- Fixing fences (as required)

Action 15b Ensure regional pest management strategies are effective at protecting hoiho habitat (H)

- Scope of ORC pest management plan expanded to include possums, mustelids, feral cats, pigs, goats, deer, hedgehog, rat

Action 15c Identify priority sites and implement wild browser control (M)

- Site by site identification and implementation
- Possum control (e.g. via PF2050, PF Dunedin, OPBG, Halo Project)
- Improved and coordinated rabbit control (ORC)



Strategic Priority 16

Prioritise and support resourcing of hoiho conservation

Action 16a Develop strategies to enable resourcing to deliver actions in this plan (E)

- Coordination & framework to aid planning across partners
- Limited funding available and applied for by partners
- Other resourcing applied for (e.g. unsuccessful IVL bid)

Action 16b Advocate to funders all project aspects & multi-year funding (E)

- HGG advocating to move to more sustainable funding



Strategic Priority 17

Support delivery of hoiho conservation through effective communication and collaboration

Action 17a Maintain and improve mechanisms for effective communication (E)

- Pre-/post- season meetings, regular updates, annual YEP symposium
- Kaitiaki roopu & Whenua Hou committee
- Working groups (e.g. fisheries), advisory groups (e.g. Okia, Te Rere)
- Developing engagement strategy

Action 17b Maintain and improve effective collaboration with local Government (H)

- ORC Regional Policy Statement review and working group
- Work with ES / ORC to identify Significant Ecological Areas
- Regular presentations & reports to ORC councillors / executive
- Liaison with ORC biodiversity team



Strategic Priority 18

Ensure Kāi Tahu is engaged in decision making from the flax roots to governance

Action 18a Ensure Kāi Tahu are involved in planning and decision making from flax roots to governance (E)

- Crown Treaty partnership
- HGG/ HTG partnership
- Kaitiaki roopu & Whenua Hou Committee
- Also see 18d

Action 18b Increase awareness of Kāi Tahu mātauraka and tikaka that guides hoiho management (H)

- Through Te Kaweka and Te Mahere initially

Action 18c Ensure Kāi Tahu engagement occurs when DOC enters into partnerships with other parties (H)

- Ongoing relationship building - Crown Treaty partnership

Action 18d Support opportunities that enable Kāi Tahu to reconnect with hoiho in the takiwā (M)

- RTIAB/RTIC/RMLT involvement in Rakiura survey
- Whanau led surveys of the Titi Islands
- Kaitiaki ranger at Moeraki



Strategic Priority 19

Ensure research is strategic, well coordinated and includes Mātauranga perspectives

Action 19a Establish and maintain a process to identify and coordinate research (E)

- Dissemination at YEP Symposium & Oamaru Penguin Conference
- Coordination and identification through Te Mahere
- Framework to aid planning across partners

Action 19b Invest in Mātauranga Māori based research & management (H)

- Scholarship through Fisheries NZ recommended

Action 19c Support opportunities for Kāi Tahu to undertake research (M)

- Opportunities not found



Strategic Priority 20

Ensure accurate, usable and accessible data contributes to hoiho conservation

Action 20a Ensure permit conditions set standards so data are consistent / accurate (E)

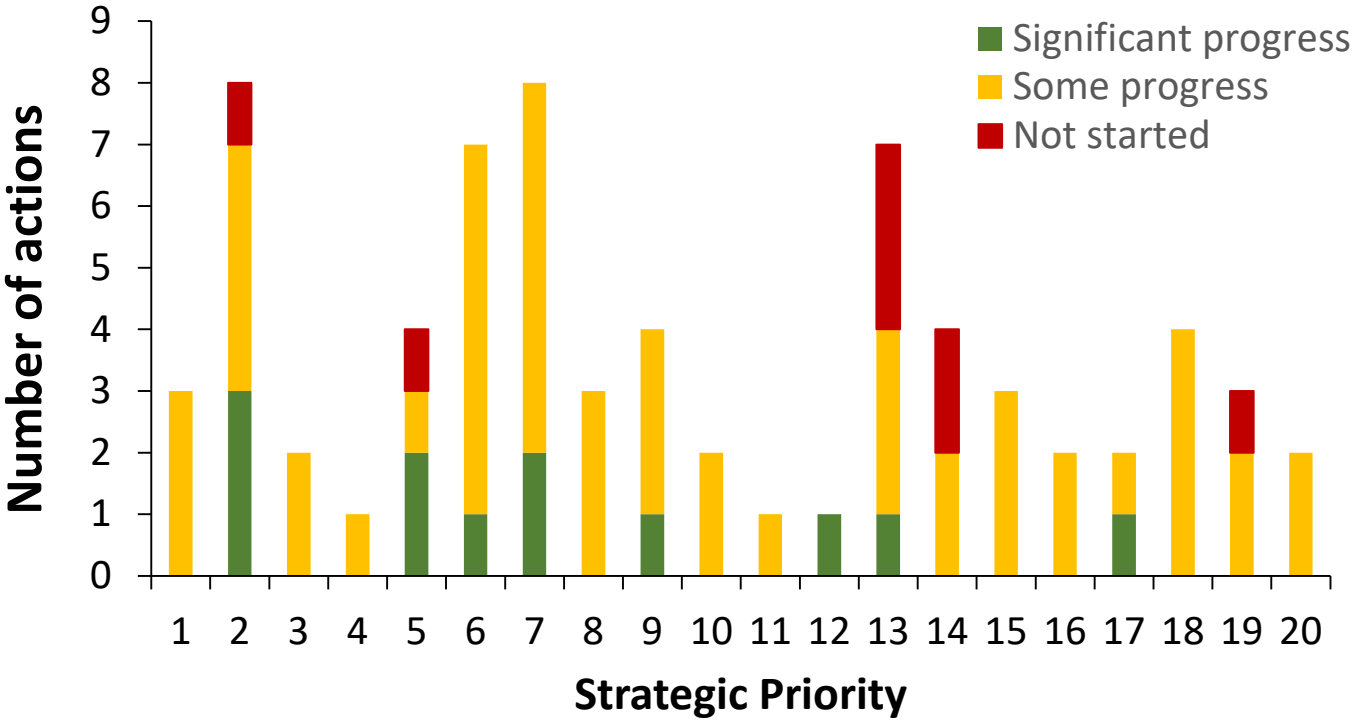
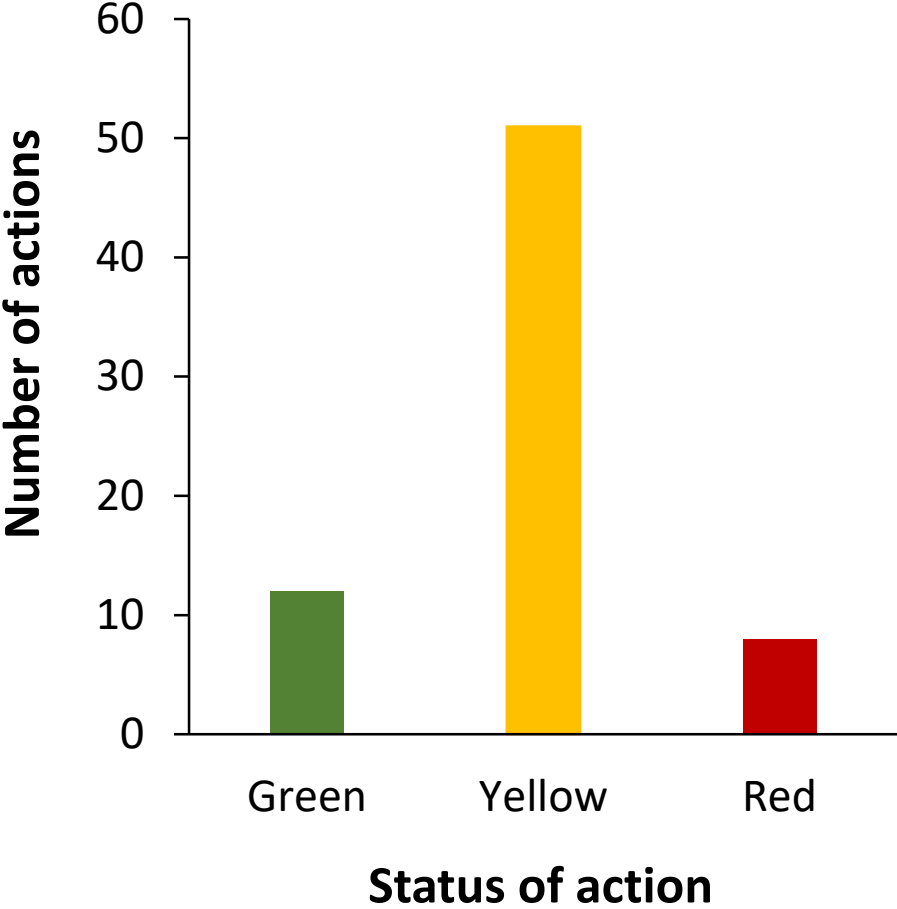
- Ongoing, case by case process
- Provision of data (e.g. googledocs, database)

Action 20b Identify and undertake improvements to data sets & systems to support hoiho conservation (H)

- DOC hosting hoiho database
- FNZ project to groom hoiho database
- App development started (PR & NZPI)

SUMMARY OF PROGRESS

71 actions in 2020/21





Please send additional feedback on progress to the
Hoiho Technical Group:

hoihofeedback@doc.govt.nz

Progress report and presentation will be available at:

www.doc.govt.nz/hoiho-recovery