

Bat handling competencies authorisation

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Approved by: Bat Recovery Group

1. Context

- Certification by the NZ Bat Recovery Group is required for any permits that require handling bats (for NZ Wildlife Act 1953 Authorisations).
- New Zealand bats, which are threatened species, are small, delicate and thus vulnerable to injury if handled incorrectly. Therefore, anyone that handles them must have levels of competency that ensure they are handled ethically. A competent handler will know how to catch, hold and release appropriately, understand if a bat is in torpor or not and adjust their handling appropriately, and when and how to attach monitoring devices.
- Bat workers can reach a level of competency in up to 27 skills described below.
- Each skill is represented by a separate competency.
- Details of skill requirements are outlined in the NZ Bats Best Practice Manual:

<http://www.doc.govt.nz/Documents/science-and-technical/inventory-monitoring/im-toolbox-bats/im-toolbox-bats-doc-best-practice-manual-of-conservation-techniques-for-bats.pdf>).

2. Purpose

To outline the ethical standards required to be registered as competent, authorised bat workers by the NZ Bat Recovery group.

3. Definitions and registration processes

- **Registered Bat Trainee:** A person who has registered with the Bat Recovery Group as a Trainee.
- **Bat Banding Trainee:** A person who has registered with the NZ Banding Office as a Level 1 bat bander.
- **Trainee Log:** A logbook of all training sessions undertaken, with each session signed by an Authorised Trainer. Logbooks are available from bathandler@doc.govt.nz or from www.doc.govt.nz/bat-worker-resources.

¹ This revision changes the wording of competency 3.1 to better reflect the intention of the competency

- **Competent bat worker:** A person who has been certified as ‘Competent’ in a particular skill by the NZ Bat Recovery Group.
- **Authorised Trainer:** A person who is registered as competent in a particular skill AND has been authorised by the Bat Recovery Group to teach and supervise Registered Trainees in that skill (but only if they are working under an existing Research or Collection Permit and Wildlife Act Authority or if they are a Department of Conservation Trainer). The Trainer **must** be present for all training and inspect all competency activities.

4. Training

- While people are designated as Trainees, training must occur under the direct supervision of an Authorised Trainer (see above).
- Once a competency or competencies has/have been signed off by the Bat Recovery Group, the bat worker can work independently with respect to that skill(s) (if they have the appropriate permits).
- The Trainee will keep a logbook that describes experience in each competency (DOC-6228629). This needs to be signed by an Authorised Trainer(s).
- The Trainee must have read and understood the NZ Bats Best Practice Manual (see link above).
- Trainees can be certified either in individual competencies or multiple competencies. Like bird banding in New Zealand, it is envisioned that for most trainees it may take several years to achieve all competencies because opportunities for hands-on bat work are limited.

5. Application for competency

- When trainees reach target handling levels described under each competency, they may apply to the Bat Recovery Group, via bathandler@doc.govt.nz, for certification in that competency. However, reaching the target level does not automatically give the applicant certification and an application for competency must be accompanied by a letter of endorsement in writing from at least one Authorised Trainer.
- Applicants can apply for certification for single or multiple competencies.
- Applications must include a short summary of bat handling experience, copies of signed training logs, and the names of two bat trainers that can attest to the applicant’s competency.
- Applications will be reviewed by the Recovery Group at its monthly meeting.

- Applicants will receive confirmation of competency from the Recovery group within 2 months of applying.
- If competency for banding long-tailed bats is sought then the Trainee must apply to the Department of Conservation Banding Office for Level 1 Bander registration (bandingoffice@doc.govt.nz) after filling in the appropriate form (Level 1 banders; <https://www.doc.govt.nz/our-work/bird-banding/how-to-become-a-certified-bander/>).

6. Rescinding competency

- The Bat Recovery Group may rescind certification if practitioners are no longer considered competent or do not follow Best Practice.

7. Authorised trainers

- Competent bat workers may apply in writing to the Bat Recovery Group, via bathandler@doc.govt.nz, to be Authorised Trainers.
- Authorisation is at the discretion of the Recovery Group and discussion with the Recovery Group is recommended before applying.
- Applicants can apply for authorisation for training against single or multiple competencies.
- Authorised Trainers must be able to demonstrate:
 - a. A deep understanding and experience of the ecology of New Zealand bats.
 - b. Considerable experience well beyond competency levels in catching, handling and manipulating bats.
 - c. A strong aptitude for, and experience of, teaching others about bats.
 - d. A clear understanding of teaching standards.
 - e. Knowledge of the Wildlife Act and Wildlife Regulations as they apply to working with bats.
 - f. Effective communication skills, understanding of Health & Safety requirements, and administration of records.

8. List of competencies

Catching bats

1.1 Use of mist nets

- 1.1.1 Extract, bag and store correctly a total of 30 individuals of either species
- 1.1.2 Demonstrate correct mist net placement, set up, smooth operation, appropriate mist net attendance, assessment of risks and safe extraction and handling on 10+ different nights

1.2 Use of harp traps (free standing)

- 1.2.1 Lead identification of appropriate harp trapping sites and set up and monitor trap(s) on 10+ different nights
- 1.2.2 Extract 10+ bats appropriately from free standing traps
- 1.2.3 Demonstrate harp trapping protocols (animal welfare considerations, trapping in the breeding season, rain, repair and maintenance etc)

1.3 Use of harp traps (at roost entrances)

- 1.3.1 Lead set up and monitoring of trap(s) on 10+ different nights
- 1.3.2 Extract 10+ bats appropriately from traps hoisted up trees
- 1.3.3 Demonstrate harp trapping protocols at roost entrances (safe trapping at tree roosts (risk management), predation risks, disturbance risks, animal welfare considerations, trapping in the breeding season, rain, repair and maintenance etc)

2. Handling bats

2.1 Bagging, storage, handling, measuring, weighing, sexing, aging, temporary marking and releasing appropriately:

- 2.1.1 For long-tailed bats: 50 individuals
- 2.1.2 For short-tailed bats: 50 individuals

2.2 Banding long-tailed bats:

- 2.2.1 50 individuals
- 2.2.2 Demonstrate knowledge of how to remove bands safely (2 methods; demonstrate on model bat)

2.3 Pit-tagging insertion in short-tailed bats:

- 2.3.1 Pit-tag insertion to short-tailed bats
- 2.3.2 Bat handling for pit tagging

Note that that transponder skills require exacting standards and specialised training from a select few people, and if people need this skill, they should contact the Bat Recovery Group to apply to get trained.

2.4 Attaching radio transmitters (should first be competent in 2.1 and/or 2.2):

- 2.4.1 For long-tailed bats: watch 5 individuals having radio transmitters attached by a Competent Bat Worker or Authorised Trainer
- 2.4.2 For long-tailed bats: attach radio transmitters to 5 individuals correctly under supervision
- 2.4.3 For short-tailed bats: watch 5 individuals having radio transmitters attached
- 2.4.4 For short-tailed bats: attach radio transmitters to 5 individuals correctly under supervision
- 2.4.5 Demonstrate understanding of reasons for attaching transmitters, Animal Ethics issues, (risk management and animal welfare considerations, trapping)

2.5 Taking wing biopsies

- 2.5.1 Watch 5 individuals having biopsies taken by a Competent Bat Worker or Authorised Trainer
- 2.5.2 Take biopsies from 10 individuals under supervision
- 2.5.3 Understand and follow the Standard Operating Procedure (available on request from Bat Recovery Group Leader)

3. High risk activities – Roost felling (all of these competencies include the understanding of what to do when bats are found during tree felling as per Appendix 6 of ‘Initial Veterinary Care for New Zealand Bats’.²

- 3.1 Assessing roost tree use using Automatic Bat Monitors - Demonstrate correct timing, placement, and identifications of bat detections for 10+ times according to DOC’s Bat Roost Protocols.
- 3.2 Undertake roost watches/emergence counts at 10+ occupied roosts where the entrance is visible.
- 3.3 In at least two different forest/habitat types, including the forest/habitat type where trees are going to be assessed:

² Available at www.doc.govt.nz/bat-worker-resources

evaluate 10+ potential roost features in trees (e.g., cavities, peeling bark, epiphytes).