



Environmental Permit

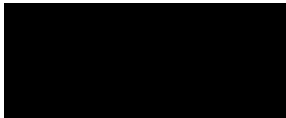
Environment Protection Act (CAP. 549)

Permit number:
NP0015/20

Approved documents
NP0015/20/9A

The Environment and Resources Authority (hereinafter the Authority; the Competent Authority or ERA) in exercise of its powers under the Environment Protection Act (CAP. 549), hereby authorises:

Ms Clare Marie Mifsud [REDACTED] (hereinafter "the Permit Holder"), Of / Whose Registered Office (or principal place of business) is at



Renewal of NP0391/18- Bat capture and tissue sampling and capture of *Lepidoptera*

At all locations except Filfla, Fungus Rock, Selmunett

The validity of this permit is **up to 31st December 2020**. An application for renewal of this permit is to be submitted at least **one (1) month** prior to expiry of this permit.

Signed	Date
<p style="text-align: center;">Anthony Aquilina Unit Manager (Permitting) F/ Director Environment and Resources</p>	<p style="text-align: center;">Permit Granted: 03/03/2020</p>

Authorised to sign on behalf of the Competent Authority

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Conditions

Introductory Note

The Environment and Resources Authority (ERA) is hereby granting you renewal of the permission in accordance with the provisions of the Environment Protection Act and Regulation 18(2) of the Flora, Fauna and Natural Habitats Protection Regulations, 2006 (S.L. 549.44), hereinafter referred to as the Regulations, for the purpose of handling of protected species found within Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).

The renewal of this permission is also granted in accordance with Regulation 43(a)(b)(e) of the Flora, Fauna and Natural Habitats Protection Regulations, 2006 (S.L. 549.44), for the purpose of exempting the permit holder from the prohibitions referred to in regulation 25(1) of the same Regulations, on the pursuing, taking, capturing, temporary keeping and reintroduction of live specimens into the wild (of specimens captured from the wild only), in the interest of protection of wild fauna in line with Regulation 44(a)(d) of S.L.549.44.

The activity shall, subject to the conditions of this Permit, be managed, controlled and carried out as described in the NP Application, approved documents, and/or as otherwise previously agreed in writing by the Authority.

Status Log

Detail	Date
<i>Application NP0095/16 issued</i>	08/02/2017
<i>Application NP0271/17 issued</i>	01/01/2018
<i>Application NP0391/18 issued</i>	12/12/2018
<i>Application NP0015/20</i>	20/12/2019
<i>Permit Issued</i>	03/03/2020

Permitted Activities

1. The Permit Holder is authorised to carry out the activities and the associated activities specified in Table 1

Table 1.

Activity	Description of specified activity	Limits of specified activity
Handling of protected specimens of <i>Chiroptera</i>	Capture of bats using mist nets, taking of tissue samples and capture of <i>Lepidoptera</i> and <i>Coleoptera</i> as specified in method statement NP0015/20/1B	(i) Capturing of <i>Chiroptera</i> specimen with the use of mist nets; (ii) Recording of sex, age, reproductive status, collection of faecal samples and taking of tissue samples by permit holder; (iii) Collection of <i>Lepidoptera</i> and <i>Coleoptera</i> specimens.

Site

2. The activities authorised under condition 1 shall be affected in all locations around the Maltese Islands excluding Filfla, Fungus Rock and Selmunett Islands, unless covered by a specific permit.

Conditions of Activity/Work

3. Collection of live specimens shall be in accordance with the Method Statement at NP0015/20/1B. Standard medical procedures that respect the welfare of the animal should be employed. Necessary clearances in this respect should be sought by the permit holder from the relevant entities.
4. This permit is valid for the pursuing, taking, capturing, temporary keeping, rehabilitation and reintroduction of live specimens into the wild of the following *chiroptera* found in the wild in Malta for the purpose of rescue and rehabilitation:
 - a) *Hypsugo savii*;
 - b) *Myotis punicus*;
 - c) *Pipistrellus kuhlii*;
 - d) *Pipistrellus pipistrellus*;
 - e) *Plecotus gaisleri*;
 - f) *Rhinolophus hipposideros* and
 - g) *Tadarida teniotis*.

The permit is also valid for the capturing of *Lepidoptera* and *Coleoptera* specimens from around the Maltese Islands, including SACs.

5. The permit holder shall ensure that disturbance of any specimen of any other species is kept to a minimum. Attention must also be afforded to the whole of the environment of the areas especially if the area has a status of protection.
6. The keeping of any specimen of *chiroptera* should be limited to the time required for the sampling. Specimens are to be released at same point of capture without any unnecessary delay.
7. Collection of live specimens shall be in accordance with the method statement at NP0015/20/1B. Standard procedures that respect the welfare of the animal should be employed. Necessary clearances in this respect should be sought by the permit holder from the relevant entities.
8. The use of mist nests is being authorised subject that:
 - a. That they are not left unattended;
 - b. That they are checked regularly to minimize stress and the risk of injury of captured specimens;
 - c. They are not to be deployed during the day;
 - d. No physical alteration is made to the environment to aid in the deployment of nets;
 - e. That they are deployed only in the following locations as specified by the permit holder:

Site	Status	GPS Coordinates
Buskett	L-Inhawi tal-Buskett u tal-Girgenti SAC Ref.: MT0000018	35°51'20.35N 14°23'43.34E
Birżebbuġia	/	35°48'27.69N 14°31'23.59E
Chadwick Lakes	/	35°53'34.97N 14°23'29.59E
Comino	Kemmuna u l-Gzejjer ta' Madwarha SAC Ref.: MT0000017	36°00'24.17N 14°20'50.16E
Dwejra, Malta	/	35°54'21.51N 14°22'55.42E
Għargħur	/	35°55'47.49N 14°26'56.47E
Imtaħleb	Rdumijiet ta' Malta: Ir-Ramla ta' Ċirkewwa sal-Ponta ta' Bengħisa SAC Ref.: MT0000024	35°52'53.94N 14°20'40.19E

Imtarfa	/	35°53'35.74N 14°24'08.34E
Marsascala	/	35°51'52.08N 14°33'03.08E
Mellieħa	/	35°57'48.78N 14°22'04.63E
Mgarr ix-Xini, Gozo	/	36°01'26.03N 14°15'49.71E
Miġra L-Ferħa	Rdumijiet ta' Malta: Ir-Ramla tac-Ċirkewwa sal-Ponta ta' Bengħisa SAC Ref.: MT0000024	35°52'30.39N 14°20'32.71E
Miżieħ	Rdumijiet ta' Malta: Ir-Ramla tac-Ċirkewwa sal-Ponta ta' Bengħisa SAC Ref.: MT0000024	35°56'45.06N 14°21'23.29E
Naxxar	/	35°92'80.8N 14°44'62.6E
Rabat	L-Għar tal-Iburdan u l-Inħawi ta' Madwar SAC Ref.: MT0000025	35°52'23.09N 14°23'09.37E
Sigġiewi	L-inħawi tal-Buskett u tal-Girgenti SAC Ref.: MT0000018	35°50'54.70N 14°24'44.35E

9. All the necessary precautions are to be taken whilst deploying mist nets, to ensure that no species are harmed. Any non-target species that are captured are to be released immediately unless requiring veterinary care.
10. Bat tissue samples will be collected using a disposable sterile biopsy punch as per Project Description Statement approved at NP0015/19/1B. Only one biopsy punch will be performed on each individual specimen in order to collect a sample for study.
11. Should veterinary care be required for the specimens that are in the care of the permit holder, this should be sought by reporting on info@naturetrustmalta.org or 99999505 and ERA's Monitoring and Compliance Unit on ced.nature@era.org.mt or 99210404.

General Conditions

5. The 'Permit Holder', is responsible to ensure that all reasonable precautions are taken so that the activity conforms to the conditions in this Permit and the procedures outlined within the Permit application.
6. The activities covered by this permit are restricted to the permit holder, employees and/or volunteers and contracted parties commissioned for such activities/works under his supervision and direction, who shall all be made aware of this permit and the contents within.
7. The Permit holder is not exempt from any other legislation or regulations, codes of practice, conditions or requirements imposed by any other competent authorities, including the obtaining of permits, licenses, or clearances to undertake works authorised by this permit, including from site owners.
8. The following activities are strictly prohibited:
 - a. the deliberate picking, collection, taking, cutting, uprooting, harming, destroying or damaging deliberately destroying, keeping, transporting, selling, buying exchanging, offering for sale or for exchange, importing or exporting in any way of any specimen of wild flora;
 - b. the deliberate hunting, killing, capturing, taking, harming, disturbance particularly during periods of breeding, rearing, hibernation and migration, destruction and deterioration of breeding sites or resting places, pursuing,

taking or attempting to take, deliberately killing or attempting to kill, deliberately destroying, keeping, transporting, selling, buying exchanging, offering for sale or for exchange, importing or exporting any specimen of any specimen of wild fauna, except as permitted.

9. ERA may request updates and/or further information on the activity in question as deemed necessary
10. The conditions imposed shall be adhered to throughout all the activities. Failure to do so may result in enforcement action and cessation of any related works or activities.
11. The Authority may add, amend, suspend or revoke this permit or part of this permit in cases of fraud, where public safety or significant environmental damage or risk is concerned, where there is an error on the face of the record or where there is a breach of one or more permit conditions after a written warning is given by the Authority or in any eventuality that gives the Authority enough reason to suspend or revoke this permit.
12. The Permit Holder may apply for a variation of the permit and shall seek the Authority's written agreement prior to any operational changes, by sending to the Authority:
 - a. Written notice of the details of the proposed change, including an assessment of its possible effects or risks to the environment from the approved activity;
 - b. Any relevant supporting information;
 - c. Any relevant supporting assessments and drawings, and;
 - d. The proposed implementation date.

Any such change shall only be implemented following the issue of a variation of the permit by the Authority.

13. In accordance with Regulation 46(4) of S.L. 549.44, a brief report with photos of the activities held, including any publications as a result of the activity, is to be provided to ERA by the Permit Holder within one month of the expiry of the permit, and is to be submitted to nature.permitting@era.org.mt. Information that should be treated as confidential as outlined in Regulation 48(4) of S.L. 549.44 shall be specified.

A template for the report is available at <http://era.org.mt/en/Documents/Activity%20Report%20template.doc>. The report is also to include photographs of the plagiopatagium that has been used for the taking of the small tissue sample.

Nil reports, where applicable, are also to be submitted.

A copy of any resulting publications, scientific papers, dissertations, theses, articles and/or videos resulting from any study carried out in relation to the specimens and activities for which this Permit is being issued shall reach ERA within three months from the date of publication/finalisation as the case may be. Such studies shall clearly indicate that they were possible following Permit/s issued by the ERA.

14. Any accidental handling, capture or collection of specimens or part thereof, whether dead or alive, of species listed within Schedule V and VI, and endemic species not listed in Schedule X of the Flora, Fauna and Natural Habitats Protection Regulations (S.L. 549.44) shall be reported on nature.permitting@era.org.mt within seven (7) days of sampling of the specimen provided that the permit holder may only keep such specimen or part thereof for scientific research purposes. The Authority may request additional information from the permit holder, including but not limited to, an application for authorisation for the keeping of such specimens or samples.

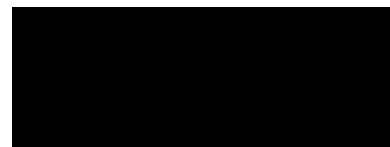
15. The Authority may add, amend, delete or substitute any of the conditions of this Permit after notifying the Permit Holder of its intention and after describing the changes to the Permit Holder. This is without prejudice to any prevailing circumstances that would preclude the Authority from following such a procedure.
16. The Authority may suspend or revoke this Environmental Permit in line with the provisions of CAP 549.
17. The Permit Holder shall notify the following matters to the Authority in writing at least 10 working days prior to their occurrence:
 - a. Any change in the Permit Holder's trading name, registered name or registered office address;
 - b. Any change to particulars of the Permit Holder's corporate identity.
18. Upon the joint application of a Permit Holder and a proposed transferee, the Permit Holder may request to transfer an environment permit. The permit shall not be transferred from the Permit Holder without prior approval from the Authority. Upon the Authority's decision to transfer the permit to the transferee, all rights, obligations, liabilities shall subsist onto the transferee.
19. In accordance with Regulation 47 of S.L. 549.44, details of the Permit Holder together with the details of conditions imposed in this Permit shall be maintained by the Authority in a register available for public inspection or maintained in electronic form.
20. ERA may inspect and monitor the activity at the expense of the Permit holder at rate and arrangement communicated by ERA's Compliance and Enforcement Directorate to ensure the safeguarding of the natural assets. ERA may also appoint other on-site monitors at the expense of the Permit Holder to act as an on-site liaison between the Permit Holder and ERA if the case arises.
21. The Authority's representatives may inspect and photograph any part of the site/activity and ask for any closed or locked areas to be opened and may demand to be provided with any proof, documentation, plans, receipts or any other records.
22. This Permit including any Variation Notices or amendments to it shall be made available for any inspection by ERA officials at all times, or any legally recognised compliance and enforcement officials, when requested.
23. Whenever there is a conflict between the conditions of this Permit and approved documents, the conditions of the Permit shall prevail.
24. ERA shall not be held liable for any accidents or injuries which may occur during the activities being permitted through this Permit. It is the responsibility of the Permit Holder to ensure that all safety measures are taken.
25. This permit is without prejudice to any liability of the Permit Holder under the Act and to any punitive measures the Authority may wish to take with respect to works already carried out without permit.
26. The validity of this permit is until **31st December 2020**. The Permit Holder may apply for a renewal to this permit expressing his/her intention at least four (4) weeks prior to the expiry of this permit. Request for renewals shall only be considered upon confirmation of compliance with permit conditions and fulfilment of documentation as requested by this permit.
27. Any aggrieved person may appeal from this decision before the Environment and Review Tribunal within 30 days in terms of Article 63 of the Environment Protection Act.

3.2 Attachment 2: Project Description - Bat Capture using mist-nets, taking of tissue samples and capture of Lepidoptera and Coleoptera

1. Aim of project: Ph.D. project to study the diet and genetics of different bat species
2. Justification for project: This research will identify prey consumed by different bat species on the Maltese Islands. Studies on bats' diet allow us to understand their foraging behaviour and their foraging requirements to help develop effective conservation strategies for these species. Such diet studies also give indications on possible threats and conservation status of the bat species under study. Identifying any insect pests within their diet also contributes towards their conservation by adding to the knowledge on how bats provide specific ecological services.
3. Brief Project Outline: To capture bats in different areas around the Maltese Islands including protected areas, record their sex, age and reproductive status and obtain faecal samples to investigate diet. Diet analyses also require the capture of Lepidoptera and Coleoptera specimens. Bat tissue samples are needed for genetic analyses to complement this research and help answer conservation-related questions.

The following is a list of bat species that may be found in Malta:

- A) *Hypsugo savii*
- B) *Myotis punicus*
- C) *Pipistrellus kuhlii*
- D) *Pipistrellus pipistrellus*
- E) *Plecotus gaisleri*
- F) *Rhinolophus hipposideros*
- G) *Tadarida teniotis*



4. Starting date: 1st January. Estimated duration of project: one year. Collection of specimens is to take place throughout the year when bats are active

5. Geographical area: Malta, Gozo and Comino. List of Sites:

Buskett	35° 51' 20.35" N	14° 23' 43.34" E
Birzebbugia	35° 48' 27.69" N	14° 31' 23.74" E
Chadwick Lakes	35° 53' 34.97" N	14° 23' 29.59" E
Comino	36° 00' 24.17" N	14° 20' 50.16" E
Dwejra, Malta	35° 54' 21.51" N	14° 22' 55.42" E
Għargħur	35° 55' 47.49" N	14° 26' 56.47" E
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Imtarfa	35° 53' 35.74" N	14° 24' 08.34" E
Marsascala	35° 51' 52.08" N	14° 33' 03.08" E
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Naxxar	35° 52' 30.08" N	14° 44' 62.06" E
Rabat	35° 52' 23.09" N	14° 23' 09.37" E
Sigġiewi	35° 50' 54.70" N	14° 24' 44.35" E

6. Persons involved: Between 2 to 3 people to help set up the mist-nets. Collector name: Clare Marie Mifsud with eight years of experience in bat capture and handling.

7. Access to area: By car and by foot

8. Description of method: Bats will be captured using mist-nets. Four mist-nets are available for this project; two 12m, one 9m and one 6m mist-nets with 14mm mesh size and 2.5m height. Bat mist-nets purchased from Ecotone, Poland. While being handled any droppings from bat individuals will be collected. Bat tissue samples will be collected using a disposable sterile 4mm biopsy punch similar to that used for the project by Baron & Vella (2010). One biopsy punch will be used for each individual and samples will be taken from the plagiopatagium without puncturing major blood vessels. This procedure will be carried out on a hard and sterile surface to prevent infections. This is a non-lethal method of tissue sampling and biopsy punch holes have been shown to heal completely in less than four weeks (Faure, Re & Clare, 2009; Ceballos-Vasquez, Caldwell & Faure, 2015). Lepidoptera samples will be collected with a light trap and Coleoptera specimens will be collected only if encountered in the area during mist-netting in the same location of bat sampling. This is important for diet analyses of bat species.



9. Safety equipment: Standard First aid box

10. The applicant has been trained to perform a standard procedure to obtain biopsy punches from bats by a licensed professional, Dr Anita Glover, Leeds University, UK, during a bat training workshop session in Croatia, 2014. The applicant has been using this technique successfully during the last permitting periods, 2016 - 2018.

References:

Baron, B., and A. Vella. 2010. A Preliminary Analysis of the Population Genetics of *Myotis punicus* in the Maltese Islands. *Hystrix, the Italian Journal of Mammalogy*, 1: 65-72.

Ceballos-Vasquez, A., J. R. Caldwell and P. A. Faure. 2015. Seasonal and reproductive effects on wound healing in the flight membranes of captive big brown bats. *Biology Open*, 4: 95-103.

Faure, P. A., D. E. Re and E. L. Clare. 2009. Wound Healing in the Flight Membranes of Big Brown Bats. *Journal of Mammalogy*, 90: 1148–1156.

