

# BL4258 Foraging in Marine Mammals

(BL4258 online module handbook version 15)

**Credits:** 15

**Semester:** 1

**Module Organiser**

Prof Patrick Miller

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01334 463554

**Pre-requisite Modules:**

Before taking this module  
you must pass BL3319

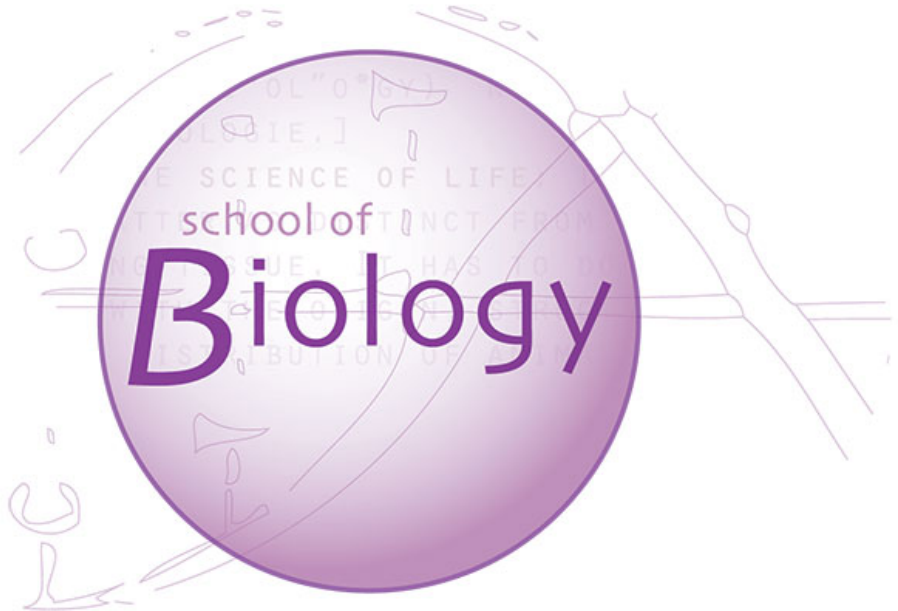
**Anti-requisite Modules:**

**Post-requisite Modules:**

**Additional Module**

**Information:**

Please [check MMS](#) regularly  
for additional module  
information



This module will provide primarily seminar and practical-based analysis of the life-history requirements of foraging in marine mammals, geographical and physiological constraints on finding food, food and feeding with a focus on types of prey and adaptations by the prey, adaptations for marine mammals feeding in the marine environment, optimal foraging theory, and optimal diving theory. Initial lectures will focus on theoretical issues and description of methods to study foraging. Students will then conduct case-studies of marine-mammal foraging, which will be presented in a seminar format as a group. Some practical work will also be included.

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[View the current Biology Online Module Catalogue for BL4258](#)

[BL4258View BL4258 \(2018/9\) in the University of St Andrews Module Catalogue](#)

## **Contents:**

- Cover
- Contents
- Timetable
- Reading List
- Assessment
- Who To Ask
- Contributing Staff
- Learning Outcomes
- Acquired Skills
- Policies

# BL4258: Timetable

**Legend** (not all modules have every event type):

lecture	tutorial	workshop	practical	other
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## Semester 1: Week 1

DATE & TIME	VENUE	STAFF	EVENT
Friday 21-09-2018 14:05 to 14:50	Bute Building LTD	<b>Miller</b>	Lecture L1: <b>Introduction to the course, overview</b> <small>2018-9_BL4258_L1</small>

## Semester 1: Week 2

DATE & TIME	VENUE	STAFF	EVENT
Monday 24-09-2018 16:05 to 16:55	Bute Building LTD	<b>Miller</b>	Lecture L2: <b>Oceanography and Foraging</b> <small>2018-9_BL4258_L2</small>
Tuesday 25-09-2018 16:05 to 16:55	Bute Building LTA	<b>Miller</b>	Lecture L3: <b>Sensory modalities in the sea</b> <small>2018-9_BL4258_L3</small>
Friday 28-09-2018 16:05 to 16:55	Bute Building LTA	<b>Thompson</b>	Lecture L4: <b>How life history impacts foraging and visa versa in pinnipeds: capital and income breeding</b> <small>2018-9_BL4258_L4</small>

## Semester 1: Week 3

DATE & TIME	VENUE	STAFF	EVENT
Tuesday 02-10-2018 16:05 to 16:55	Bute Building LTD	<b>Miller</b>	Lecture L5: <b>Diving physiology, management of O2 stores, behavioural requirements</b> <small>2018-9_BL4258_L5</small>
Thursday 04-10-2018 10:05 to 10:55	Bute Building LTD	<b>Miller</b>	Lecture L6: <small>2018-9_BL4258_L6</small> Studying foraging behaviour of marine mammals in the wild

## Semester 1: Week 4

DATE & TIME	VENUE	STAFF	EVENT
Monday 08-10-2018 16:05 to 16:55	Bute Building LTD	<b>Tyack</b>	Lecture L7: <b>How toothed whales use sound to forage</b> <small>2018-9_BL4258_L7</small>
Thursday 11-10-2018 16:05 to 16:55	Bute Building LTD	<b>Miller</b>	Tutorial T1: <b>Guidance for Essays and Presentations</b> <small>2018-9_BL4258_T1</small>
Friday 12-10-2018 16:05 to 16:55	Bute Building LTD	<b>Hammond</b>	Lecture L8: <b>Methods for studying the diets of marine mammals</b> <small>2018-9_BL4258_L8</small>

## Semester 1: Week 5

DATE & TIME	VENUE	STAFF	EVENT
Monday 15-10-2018 16:05 to 16:55	Bute Building LTD	<b>Smout</b>	Lecture L9: <b>Functional Response</b> <small>2018-9_BL4258_L9</small>
Tuesday 16-10-2018 14:05 to 14:55	Bute Building LTA	<b>Thompson</b>	Lecture L10: <b>Models of diving behaviour</b> <small>2018-9_BL4258_L10</small>

## Semester 1: Week 8

DATE & TIME	VENUE	STAFF	EVENT
Tuesday 06-11-2018 13:05 to 14:55	Bute Building LTD	<b>Miller</b> Heinrich	Other O1: <b>student presentations of essay material</b> <small>2018-9_BL4258_O1</small> presentations 1-4

Friday 09-11-2018 14:05 to 15:55	Bute Building LTD	<b>Miller</b> Heinrich	Other O2: <b>student presentations of essay material</b> <small>2018-9-BL4258_02</small> presentations 5-8
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## Semester 1: Week 9

DATE & TIME	VENUE	STAFF	EVENT
Tuesday 13-11-2018 13:05 to 14:55	Bute Building LTD	<b>Miller</b> Heinrich	Other O3: <b>student presentations of essay material</b> <small>2018-9-BL4258_03</small> presentations 9-12
Friday 16-11-2018 14:05 to 15:55	Bute Building LTD	<b>Miller</b> Heinrich	Other O4: <b>student presentations of essay material</b> <small>2018-9-BL4258_04</small> additional presentations if needed

# BL4258: Reading List

[BL4258 Click for BL4258 reading list](#)

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## BL4258: Assessment

2-hour Written Examination = 40%, Coursework = 60%

(MMS assessment data cached: 24 April 2019  
23:20:18.)

The following related information applies to all  
Biology modules:

School of Biology Marking Criteria:

[See School of Biology Undergraduate Handbook](#)

Late submission of continuous assessment work:

All late submissions of coursework that do not require electronic submission should be made via the **late submissions box** in the Biomolecular Science Building (beside the Teaching Office)

Exam details:

[See School of Biology Undergraduate Handbook](#)

Exam timetable:

see  
<http://www.st-andrews.ac.uk/students/academic/examinations/examtimetables/current/>

Expected attendance:

[See School of Biology Undergraduate Handbook](#) for detailed attendance requirements.

Good Academic Practice & Avoiding Academic Misconduct:

[See School of Biology Undergraduate Handbook](#)

University Student Handbook:

[University Student Handbook](#)

School and University regulations in the School and University Undergraduate Handbook relating to absence reporting, penalties and rules for late submission of work, extensions for coursework, return of coursework, S-coding, good academic practice and Academic Alerts.:

[School of Biology Undergraduate Handbook](#) [University Student Handbook](#)

# Who to ask

(Information in this section applies to all Biology Modules)

Questions about different aspects of the module should be directed to different people:

## Questions about

General teaching matters  
Rescheduled or cancelled events  
Lecture or practical content  
Completing assessed practical assignments  
Completing assessments

Marking on continuous assessment

Marking on exams

Rearranging practical days

Absence and/or extensions

Difficulties with academic progress which impact more than one module:

Overall performance, progress or future directions:

Disability:

For advice and support on any issue e.g. academic, financial, international, personal or health matters, or if you are unsure of who to go to for help:

**University assistance with urgent matters out of office hours:**

## Contact

Biology Teaching Office ( [bioteach@st-andrews.ac.uk](mailto:bioteach@st-andrews.ac.uk) )

Check your University email

The lecturer who presented the material

The lecturer who set the assignment

Module Organiser ( [Prof Patrick Miller pm29@st-andrews.ac.uk](mailto:Prof Patrick Miller pm29@st-andrews.ac.uk) )

The Demonstrator or Module Organiser ( [Prof Patrick Miller pm29@st-andrews.ac.uk](mailto:Prof Patrick Miller pm29@st-andrews.ac.uk) )

Module Organiser ( [Prof Patrick Miller pm29@st-andrews.ac.uk](mailto:Prof Patrick Miller pm29@st-andrews.ac.uk) )

[Grant Brown](#)

Module Organiser ( [Prof Patrick Miller pm29@st-andrews.ac.uk](mailto:Prof Patrick Miller pm29@st-andrews.ac.uk) ) **and** the Biology Teaching Office ( [bioteach@st-andrews.ac.uk](mailto:bioteach@st-andrews.ac.uk) )

Year Coordinator

See [School of Biology Undergraduate student handbook](#) for list:

<http://biology.st-andrews.ac.uk/documents/UndergraduateHandbook.pdf>

Advisor of Studies

Disability Coordinator ( [Dr Jacqueline Nairn jn37@st-andrews.ac.uk](mailto:Dr Jacqueline Nairn jn37@st-andrews.ac.uk) )

Advice & Support Centre

Address: 79 North Street, St Andrews

Email: [theasc@st-andrews.ac.uk](mailto:theasc@st-andrews.ac.uk)

Web: <https://www.standrews.ac.uk/ask-a-question/>

Tel: 01334 462020

Tel: 01334 476161

Web: <https://www.st-andrews.ac.uk/students/advice/counselling/incrisis/>

## Biology Teaching Office:

We are happy to hear from you about teaching matters. The School of Biology Teaching Office is open Monday to Friday 09.00 - 13.00 and 14.00 - 17.00. School of Biology staff will respond to your emails during these hours. Our team will provide a response to you within three working days.

Biology Teaching Office, The Biology Hive, New Technology Centre, University of St Andrews, North Haugh, St Andrews, Fife KY16 9SR

Email: [bioteach@st-andrews.ac.uk](mailto:bioteach@st-andrews.ac.uk)

Tel: 01334 463602/3566

## **BL4258: Contributing Staff**

## **BL4258: Learning Outcomes**

Students completing module BL4258 successfully should be able to:

- We hope to provide a *new* perspective from which you can appreciate what is known (and indeed, gaps in this knowledge) about foraging behaviour in this diverse group of animals and help you to structure this information in a meaningful way.
- The idea of the module is not to present a series of lectures but rather engage you in an exploration of what is known about how marine mammals find and capture their prey, how their physiology facilitates this and how their success or failure impacts the
- We will also emphasize the approaches and techniques used in marine mammal foraging studies.
- While there will be some lecture material, we will expect you to actively take part in an exploration of the literature and present what you find to the class.
- We cannot cover all areas of interest but we hope that by the end of the course you will be in a good position to follow your own interests in the popular or primary literature and to critically evaluate current conservation and management issues.
- Most importantly, we hope to foster an enthusiastic interest in marine mammals, their conservation and the protection of the marine environment.



# **BL4258: Acquired Skills**

## **Practical Skills**

## **Transferable Skills**

- Group discussion - participating
- Long individual presentation on given topic (>15 min)
- Long essay (>2000 words)
- Review article on given topic
- Critically evaluating sources/information
- Finding literature
- Searching databases
- Sourcing figures/tables

# Policies

(Information in this section applies to all Biology Modules)

- The procedures and regulations followed by the School of Biology are outlined in the [University Handbook](#) and in the [School of Biology Undergraduate Handbook](#) (<https://synergy.st-andrews.ac.uk/biocurrentstudent/files/2017/09/UndergraduateHandbook.pdf>).
- All coursework associated with the module must be completed and submitted by its due date.
- Specific School regulations relating to absence reporting, penalties and rules for late submission of work, extensions for coursework, return of coursework, S-coding, Good Academic Practice and Academic Alert are stated in the [School of Biology Undergraduate Handbook](#) and students are required to carefully read these regulations.
- Students are also referred to the University Handbook, available at: <http://www.st-andrews.ac.uk/studenthandbook/>