



BIOL260

Science of Sex

S2 Day 2019

Dept of Biological Sciences

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Disclaimer

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General Information

Unit convenor and teaching staff

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Credit points

3

Prerequisites

(12cp at 100 level or above) or admission to GCertBiotech

Corequisites

Co-badged status

Unit description

Topics related to sex pervade our culture, media, politics, relationships and everyday life.

Despite this, many of us have never had the opportunity to learn why sex evolved. What are the real differences between males and females? What is the chemistry that makes partners attractive? Why are the sexual strategies and behaviours of different species so diverse?

What hormones control our maturation, reproductive cycles and pregnancy? This unit takes a broad approach, using examples (some quite bizarre) from the animal and plant worlds. At the same time, we cover in depth the sexual biology and behaviour of our own intriguing species.

Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are available at <https://www.mq.edu.au/study/calendar-of-dates>

Learning Outcomes

On successful completion of this unit, you will be able to:

1. Understand and use correct biological terminology
2. Explain the difference between asexual and sexual reproduction, and have an understanding of why sexual reproduction has evolved
3. Identify the various mating systems for both plants and animals, and the strategies used by males and females from each system
4. Recall specific examples of species from each of the mating systems presented during lectures
5. Outline and understand evolutionary processes, especially in relation to sexual

selection (rather than natural selection)

6. Read and understand scientific papers in the sexual selection literature

7. Create a poster that succinctly summarises information on a sexual selection topic

General Assessment Information

Quiz 1: Science Skills (0%)

Workshop: online workshop and associated resources accessible via <http://bio.mq.edu.au/science-workshop/>. Four topics are covered: library searches, communication skills, referencing and plagiarism. Quiz 1 is based on this workshop, so it is recommended that you listen and read all guides and slides before attempting the quiz. **The information provided in this workshop is necessary for all assessments in this unit.**

Online quiz: compiled of 10 questions and completed in iLearn. A variety of question types are included, for example multiple choice, true/false, short answer matching. The quiz will test your general science skills knowledge eg. referencing, plagiarism, basic science communication, library searches. You have three attempts at this quiz, and it closes at the **end of week 4**.

Science Literacy assessment (5% each topic, 20% total, 4 due dates)

Science Literacy assessments: These four assignments short written will help you understand what makes a good scientific source, the importance of good background and methods information, and how to interpret data output from experiments. Submit via TurnItIn.

Due Dates: Good Sources, 16-August; Justifying Hypothesis, 30-August; Managing Methods, 13-Sept; Handling Data, 11-October

Quizzes 2-11 (5% each topic, 50% total)

Weekly online quizzes: 25-min quizzes compiled of ~20 questions (23 marks; ~1 minute per question) and completed in iLearn. You have only one attempt at each quiz. The time is short and you only have one attempt as these quizzes are designed to be taken as closed note, i.e. you have studied and know the information well. A variety of question types are included, for example multiple choice, true/false, short answer matching. Quizzes test your knowledge of the content from the corresponding lectures and reading assignments (see TEXTBOOK READINGS section on iLearn. These quizzes will become available no later than the Friday after the associated lectures are completed (*with exception of quiz 7 which will become available after due date for 2-6 has passed*). However, **Quizzes 2-6 are due by the first Monday of Mid-semester break. Quizzes 7-11 are due by first Monday of Exams.** We strongly suggest that you do the quizzes each week rather than waiting until mid-break or the end of semester. It also is easier to do them when information is fresh.

Poster assessment (25%)

Based on a real data set (provided in iLearn), the idea is to take on the role of the researcher and present the research findings as if they are your own. More detailed instructions will be provided in iLearn. Various resources are available in iLearn under 'Poster Assessment'.

A poster communicating your research findings is due at the end of **week 11**. Submission is online via the Poster assessment link. The poster should be created in PowerPoint, Keynote or Open Office only, and then converted to a pdf for online submission via TurnItIn AND Workshop. These marks comes from the course markers. There is no in-person presentation of the poster, just online submission.

As this course has no final exam, the mark for this assessment will be release with your final grades, not before.

Peer review (5%)

In order for your poster to be marked by your peers, you will need to submit it via the peer review assessment workshop link in iLearn. Please do this by the end of **week 11**. You will be provided with three online example posters that require assessment before you submit your own poster in week 11 – this is to give you experience in peer review and to give you ideas for your own poster. **YOU MUST COMPLETE THE PRACTICE REVIEWS BEFORE YOU CAN SUBMIT YOUR POSTER TO WORKSHOP!**

Once all posters are submitted, you will be randomly allocated five peer posters and will be required to evaluate them online in iLearn by the end of **week 12**. Your mark is calculated from weighted marks given half from your ability to mark appropriately compared to your peers, and half from how your peers marked you.

Detailed instructions are provided in iLearn. You should also re-read the 'poster summary' in iLearn before reviewing (see 'Poster Creation' section in iLearn).

Final exam

There is no final exam! Good Luck on your other courses exams!

Practicals

There are no practicals for this course!

Assessment submission

All assessments must be submitted online in iLearn as pdf files only. General instructions on how to submit assessments in iLearn are provided in the Essential Course Resources section under

'iLearn help guides'.

Science literacy: Submitted to correct topic in turnitin in a word document format that turnitin can assess for plagiarism. If the document cannot be assessed for plagiarism by turnitin you will lose 10% off mark for first assessment with this issue and a zero for any additional assessments that cannot be plagiarism checked.

Poster assessment: You should submit your poster pdf to the poster assessment link. The text included in your poster pdf is submitted to turnitin.com to check for plagiarism, so your original poster file must be created in PowerPoint, Keynote or Open Office only so that the text can be read by turnitin. Posters created in graphics-based programs like Photoshop and Illustrator will not be accepted by turnitin. More specific instructions on how to submit turnitin assessments are found in the Poster Assessment section in iLearn under the 'poster submission' subheading. If the entire document cannot be assessed for plagiarism by turnitin you will lose 25% off mark, if parts of the document cannot be assessed for plagiarism you will lose 15% off your mark.

Peer review: First, before you submit your poster you should mark the three practice posters in the peer review link (scroll down to the bottom of the page when you enter workshop). We suggest you do this well before the due date so that you can get some ideas for your own poster. Second, you should submit your completed poster pdf to the peer review. The poster pdf submitted to the peer review link will then be randomly allocated and marked by your peers. Instructions on how to submit via the peer review link are found in iLearn under the 'peer review' subheading. Third, log back in and complete peer review of 5 of your fellow student's poster.

Extensions and penalties

10% of the mark allocated for each assignment will be deducted per day that any work is submitted late. All applications for extensions of deadlines with out penalty must be submitted to via the University's special considerations form (see details and form link below). All applications for special consideration or extension must be sought *before the due date* unless this is absolutely impossible (in which case you have 3 days from the due date).

The Special Consideration policy: <https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policies/special-consideration>

The form: <https://students.mq.edu.au/study/my-study-program/special-consideration>

Assessment marks and feedback

Marks for each assessment can be found in the iLearn grade book (click on the Tools tab at the top of screen, and then on Grades).

Science literacy: Feedback will be provided online via GradeMark in turnitin.

Poster: Feedback for the poster will be provided online via GradeMark – click on the 'Poster assessment' link to view. Instructions on how to view feedback and grades are found in iLearn under the 'poster marks/comments' subheading.

Quizzes: Correct answers and basic feedback for Quiz 1 (Science Skills) will be provided online. The other quizzes are to be treated as exams, therefore feedback will not be provided. Marks will, however, be available in the grade book after you finish each quiz.

Assessment Tasks

| Name | Weighting | Hurdle | Due |
|--|-----------|--------|------------|
| Science Skills Quiz (Quiz 1) | 0% | No | 16 August |
| Science literacy assessment | 20% | No | four dates |
| Practice poster review | 0% | No | 24-October |
| Poster assessment | 25% | No | 25-October |
| Peer Review | 5% | No | 1 November |
| Weekly Quizzes | 50% | No | Two dates |

Science Skills Quiz (Quiz 1)

Due: **16 August**

Weighting: **0%**

Workshop and Online Quizzes.

Workshop: provides information necessary for all assessments in this unit. Everyone should complete this and the quiz to demonstrate your grasp of what is needed for the assessments.

Quiz: 10 questions test your general science skills knowledge eg. referencing, plagiarism, basic science communication, library searches. Anyone can complete to test baseline knowledge. Students with no science background are recommended to first read Section One before attempting.

You have three attempts at this quiz, and your highest score will be recorded.

On successful completion you will be able to:

- 1. Understand and use correct biological terminology
- 2. Explain the difference between asexual and sexual reproduction, and have an understanding of why sexual reproduction has evolved
- 6. Read and understand scientific papers in the sexual selection literature

Science literacy assessment

Due: **four dates**

Weighting: **20%**

Short written assignments to build your science literacy and competency while preparing you to do your poster assessment.

Four total - 5 points each - submit via TurnItIn:

- 1) Good Sources: 16-August
- 2) Justifying Hypotheses: 30-August
- 3) Managing Methods: 13-Sept
- 4) Handling Data: 11-October

On successful completion you will be able to:

- 1. Understand and use correct biological terminology
- 2. Explain the difference between asexual and sexual reproduction, and have an understanding of why sexual reproduction has evolved
- 3. Identify the various mating systems for both plants and animals, and the strategies used by males and females from each system
- 4. Recall specific examples of species from each of the mating systems presented during lectures
- 5. Outline and understand evolutionary processes, especially in relation to sexual selection (rather than natural selection)
- 6. Read and understand scientific papers in the sexual selection literature

Practice poster review

Due: **24-October**

Weighting: **0%**

Done online in Workshop. Must complete to be able to submit poster for peer review.

It is best done before you start making you own poster so you get an idea of what makes a good poster.

This is to help standardise everyone's marking styles before doing the peer review assessment, and to help you understand good and bad poster styles.

On successful completion you will be able to:

- 6. Read and understand scientific papers in the sexual selection literature
- 7. Create a poster that succinctly summarises information on a sexual selection topic

Poster assessment

Due: **25-October**

Weighting: **25%**

Based on a real data set selected from those provided in iLearn, the idea is to take on the role of the researcher and present the research findings as if they are your own.

Submitted online only (TurnItIn AND Workshop), no in-person presentation.

This mark comes from course markers - this mark will be released with your final grade similar to a final exam mark.

On successful completion you will be able to:

- 1. Understand and use correct biological terminology
- 2. Explain the difference between asexual and sexual reproduction, and have an understanding of why sexual reproduction has evolved
- 3. Identify the various mating systems for both plants and animals, and the strategies used by males and females from each system
- 4. Recall specific examples of species from each of the mating systems presented during lectures
- 5. Outline and understand evolutionary processes, especially in relation to sexual selection (rather than natural selection)
- 6. Read and understand scientific papers in the sexual selection literature
- 7. Create a poster that succinctly summarises information on a sexual selection topic

Peer Review

Due: **1 November**

Weighting: **5%**

Marking your peer's posters!

Completed online in Workshop.

You will be randomly allocated five peer posters and will be required to evaluate them online in iLearn's Workshop.

There is practice marking you have to complete before you can submit your poster for the peer assessment to help standardise you to the marking requirements.

Your mark is calculated from weighted marks given half from your ability to mark appropriately compared to your peers, and half from how your peers marked you. The final mark is weighted based on overall class participation.

On successful completion you will be able to:

- 1. Understand and use correct biological terminology

- 2. Explain the difference between asexual and sexual reproduction, and have an understanding of why sexual reproduction has evolved
- 6. Read and understand scientific papers in the sexual selection literature
- 7. Create a poster that succinctly summarises information on a sexual selection topic

Weekly Quizzes

Due: **Two dates**

Weighting: **50%**

There are 10 marked quizzes for topics 2-11 (5% each), you must make a serious attempt at 7 or more of the 10 quizzes.

Quizzes test your knowledge of the content from the corresponding lectures and assigned readings.

Each quiz will become available no later than Friday of the week its content topic is presented.

While it is ENCOURAGED you complete the quizzes as they become available, there are two set due dates during the semester:

- 1) **Quizzes 2-6** are due no later than **16-September** - The first day of mid-semester break.
- 2) **Quizzes 7-11** are due no later than **11-November** - The first day of exam week.

You have only one attempt at each quiz!

Quizzes are timed with ~20 Questions to be completed in 25 min. A variety of question types are included, for example multiple choice, true/false, short answer matching. Quizzes should be taken in a semi-exam setting, i.e. quiz times and attempts are limited with the expectation that you have studied and know the material as you would for a closed note quiz.

Feedback/Review - as these are designed to replace the final exam, no direct feedback or results review (beyond the mark) is provided after the quiz is completed or closed. Those wishing to question their results can contact the course convenor.

On successful completion you will be able to:

- 1. Understand and use correct biological terminology
- 2. Explain the difference between asexual and sexual reproduction, and have an understanding of why sexual reproduction has evolved
- 3. Identify the various mating systems for both plants and animals, and the strategies used by males and females from each system
- 4. Recall specific examples of species from each of the mating systems presented during lectures
- 5. Outline and understand evolutionary processes, especially in relation to sexual

selection (rather than natural selection)

Delivery and Resources

Three lectures per week, are delivered in person, all available online In iLearn Echo360 live and ~1hr after recorded.

2019 S2 times and location

| | | |
|---------------|-------------------|---------------------|
| Lecture 1 & 2 | Monday 3 - 5 pm | 14SCO Mason Theatre |
| Lecture 3 | Wednesday 2 - 3pm | 14SCO Mason Theatre |

PLEASE NOTE: THERE ARE NO PRACS OR TUTES FOR THIS UNIT

Textbook:

This textbook was designed specifically for BIOL260, and you can purchase an ebook of the 4th edition from the publisher (\$60) - do note "4e" refers to 4th edition, although the website descriptor says edition:1

<https://www.mheducation.com.au/9781308874012-aus-cust-ebook-the-science-of-sex-4e>

Much of the lecture material corresponds with chapters in the text, and the associated readings and quiz questions are taken directly from this book.

There are also many hardcopies held in the reserve section of the library for 3 hour reserve. Hardcopies were not ordered by the Bookshop this year, however the used second, third and fourth hardcopy editions are suitable for this unit, but the first edition is not.

The full unit guide on iLearn provides the detailed page numbers for each week's reading. Note there are separate lists for the 4th edition vs the 2nd/3rd as there was a change in page numbering for the 4th edition.

Unit Schedule

| Lecture | Session Week | Date 2018 | Lecturer | Specific topic |
|---------|-----------------|--------------|----------|----------------|
| 1 | 1 | 29-July | Lori H | Unit outline |
| 2 | 1 | 29-July | Lori H | Assessment |
| 3 | 1 | 31-July | Lori H | Evolution |
| 4 | 2 | 5-Aug | Mike G | Why have sex? |

| | | | | |
|---------------------------|---|---------|----------|---|
| 5 | 2 | 5-Aug | Mike G | Sex determination |
| 6 | 2 | 7-Aug | Mike G | Gonad development |
| 7 | 3 | 12-Aug | Mike G | Development of human genitalia |
| 8 | 3 | 12-Aug | Mike G | Hormones, cycles, puberty, pregnancy |
| 9 | 3 | 14-Aug | Mike G | Gametes, fertilisation, contraception |
| 10 | 4 | 19-Aug | Mike G | Love, neurobiology and orgasm |
| 11 | 4 | 19-Aug | Mike G | Sexually transmitted infections |
| 12 | 4 | 21-Aug | Mike G | Human mate choice |
| 13 | 5 | 26-Aug | Lori H | Animal reproduction |
| 14 | 5 | 26-Aug | Lori H | Animal mating systems |
| 15 | 5 | 28-Aug | Lori H | Sexual selection & sex roles |
| 16 | 6 | 2-Sept | Martin W | Mate competition |
| 17 | 6 | 2-Sept | Martin W | Mate choice |
| 18 | 6 | 4-Sept | Malin A | Current views on sex roles* |
| 19 | 7 | 9-Sept | Matt B | Sexual signals I |
| 20 | 7 | 9-Sept | Matt B | Sexual signals II |
| 21 | 7 | 11-Sept | Matt B | Sexual signals III |
| MID-SEMESTER BREAK | | | | |
| 22 | 8 | 30-Sept | Lori H | Multiple mating & Genitalia |
| 23 | 8 | 30-Sept | Lori H | Sperm competition |
| 24 | 8 | 2-Oct | Lori H | Sex determination |
| -- | 9 | 7-Oct | -- | <i>Labour Day --no lectures--</i> |
| -- | 9 | 9-Oct | -- | <i>--no lecture-- work on assessments!</i> |

| | | | | |
|----|----|--------|---------|-------------------------------------|
| 24 | 10 | 14-Oct | Lori H | Cryptic choice |
| 25 | 10 | 14-Oct | Lori H | Sexual conflict & SAC |
| 26 | 10 | 16-Oct | Kate B | Sexual cannibalism |
| 27 | 11 | 21-Oct | Andy B | Sexual diversity I |
| 28 | 11 | 21-Oct | Andy B | Sexual diversity II |
| 29 | 11 | 23-Oct | Andy B | Sexual diversity III |
| 30 | 12 | 28-Oct | Brian A | Plant reproduction I |
| 31 | 12 | 28-Oct | Brian A | Plant reproduction II |
| 32 | 12 | 30-Oct | Julia C | Sexual deception in orchids* |
| 33 | 13 | 4-Nov | TBA | Guest Lectures |
| 34 | 13 | 6-Nov | TBA | |
| | | | | |

* denotes prerecorded lecture - watch online, no in class presentation.

Policies and Procedures

Macquarie University policies and procedures are accessible from [Policy Central \(https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central\)](https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central). Students should be aware of the following policies in particular with regard to Learning and Teaching:

- [Academic Appeals Policy](#)
- [Academic Integrity Policy](#)
- [Academic Progression Policy](#)
- [Assessment Policy](#)
- [Fitness to Practice Procedure](#)
- [Grade Appeal Policy](#)
- [Complaint Management Procedure for Students and Members of the Public](#)
- [Special Consideration Policy](#) (**Note:** *The Special Consideration Policy is effective from 4 December 2017 and replaces the Disruption to Studies Policy.*)

Undergraduate students seeking more policy resources can visit the [Student Policy Gateway](https://students.mq.edu.au/support/study/student-policy-gateway) (<https://students.mq.edu.au/support/study/student-policy-gateway>). It is your one-stop-shop for the key policies you need to know about throughout your undergraduate student journey.

If you would like to see all the policies relevant to Learning and Teaching visit [Policy Central](http://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central) (<http://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central>).

Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: <https://students.mq.edu.au/study/getting-started/student-conduct>

Results

Results published on platform other than [eStudent](#), (eg. iLearn, Coursera etc.) or released directly by your Unit Convenor, are not confirmed as they are subject to final approval by the University. Once approved, final results will be sent to your student email address and will be made available in [eStudent](#). For more information visit ask.mq.edu.au or if you are a Global MBA student contact globalmba.support@mq.edu.au

Student Support

Macquarie University provides a range of support services for students. For details, visit <http://students.mq.edu.au/support/>

Learning Skills

Learning Skills (mq.edu.au/learningskills) provides academic writing resources and study strategies to improve your marks and take control of your study.

- [Workshops](#)
- [StudyWise](#)
- [Academic Integrity Module for Students](#)
- [Ask a Learning Adviser](#)

Student Services and Support

Students with a disability are encouraged to contact the [Disability Service](#) who can provide appropriate help with any issues that arise during their studies.

Student Enquiries

For all student enquiries, visit Student Connect at ask.mq.edu.au

If you are a Global MBA student contact globalmba.support@mq.edu.au

IT Help

For help with University computer systems and technology, visit http://www.mq.edu.au/about_us/offices_and_units/information_technology/help/.

When using the University's IT, you must adhere to the [Acceptable Use of IT Resources Policy](#). The policy applies to all who connect to the MQ network including students.

Graduate Capabilities

Creative and Innovative

Our graduates will also be capable of creative thinking and of creating knowledge. They will be imaginative and open to experience and capable of innovation at work and in the community. We want them to be engaged in applying their critical, creative thinking.

This graduate capability is supported by:

Learning outcomes

- 4. Recall specific examples of species from each of the mating systems presented during lectures
- 6. Read and understand scientific papers in the sexual selection literature
- 7. Create a poster that succinctly summarises information on a sexual selection topic

Assessment tasks

- Science Skills Quiz (Quiz 1)
- Science literacy assessment
- Practice poster review
- Poster assessment

Capable of Professional and Personal Judgement and Initiative

We want our graduates to have emotional intelligence and sound interpersonal skills and to demonstrate discernment and common sense in their professional and personal judgement. They will exercise initiative as needed. They will be capable of risk assessment, and be able to handle ambiguity and complexity, enabling them to be adaptable in diverse and changing environments.

This graduate capability is supported by:

Learning outcomes

- 1. Understand and use correct biological terminology
- 6. Read and understand scientific papers in the sexual selection literature
- 7. Create a poster that succinctly summarises information on a sexual selection topic

Assessment tasks

- Science literacy assessment
- Practice poster review
- Poster assessment

- Peer Review

Commitment to Continuous Learning

Our graduates will have enquiring minds and a literate curiosity which will lead them to pursue knowledge for its own sake. They will continue to pursue learning in their careers and as they participate in the world. They will be capable of reflecting on their experiences and relationships with others and the environment, learning from them, and growing - personally, professionally and socially.

This graduate capability is supported by:

Learning outcomes

- 1. Understand and use correct biological terminology
- 4. Recall specific examples of species from each of the mating systems presented during lectures
- 5. Outline and understand evolutionary processes, especially in relation to sexual selection (rather than natural selection)
- 6. Read and understand scientific papers in the sexual selection literature
- 7. Create a poster that succinctly summarises information on a sexual selection topic

Assessment tasks

- Science literacy assessment
- Practice poster review
- Poster assessment
- Peer Review

Discipline Specific Knowledge and Skills

Our graduates will take with them the intellectual development, depth and breadth of knowledge, scholarly understanding, and specific subject content in their chosen fields to make them competent and confident in their subject or profession. They will be able to demonstrate, where relevant, professional technical competence and meet professional standards. They will be able to articulate the structure of knowledge of their discipline, be able to adapt discipline-specific knowledge to novel situations, and be able to contribute from their discipline to inter-disciplinary solutions to problems.

This graduate capability is supported by:

Learning outcomes

- 1. Understand and use correct biological terminology
- 2. Explain the difference between asexual and sexual reproduction, and have an understanding of why sexual reproduction has evolved
- 3. Identify the various mating systems for both plants and animals, and the strategies

used by males and females from each system

- 4. Recall specific examples of species from each of the mating systems presented during lectures
- 5. Outline and understand evolutionary processes, especially in relation to sexual selection (rather than natural selection)
- 6. Read and understand scientific papers in the sexual selection literature
- 7. Create a poster that succinctly summarises information on a sexual selection topic

Assessment tasks

- Science Skills Quiz (Quiz 1)
- Science literacy assessment
- Practice poster review
- Poster assessment
- Peer Review
- Weekly Quizzes

Critical, Analytical and Integrative Thinking

We want our graduates to be capable of reasoning, questioning and analysing, and to integrate and synthesise learning and knowledge from a range of sources and environments; to be able to critique constraints, assumptions and limitations; to be able to think independently and systemically in relation to scholarly activity, in the workplace, and in the world. We want them to have a level of scientific and information technology literacy.

This graduate capability is supported by:

Learning outcomes

- 1. Understand and use correct biological terminology
- 2. Explain the difference between asexual and sexual reproduction, and have an understanding of why sexual reproduction has evolved
- 3. Identify the various mating systems for both plants and animals, and the strategies used by males and females from each system
- 4. Recall specific examples of species from each of the mating systems presented during lectures
- 5. Outline and understand evolutionary processes, especially in relation to sexual selection (rather than natural selection)
- 6. Read and understand scientific papers in the sexual selection literature
- 7. Create a poster that succinctly summarises information on a sexual selection topic

Assessment tasks

- Science Skills Quiz (Quiz 1)
- Science literacy assessment
- Practice poster review
- Poster assessment
- Peer Review
- Weekly Quizzes

Problem Solving and Research Capability

Our graduates should be capable of researching; of analysing, and interpreting and assessing data and information in various forms; of drawing connections across fields of knowledge; and they should be able to relate their knowledge to complex situations at work or in the world, in order to diagnose and solve problems. We want them to have the confidence to take the initiative in doing so, within an awareness of their own limitations.

This graduate capability is supported by:

Learning outcomes

- 1. Understand and use correct biological terminology
- 2. Explain the difference between asexual and sexual reproduction, and have an understanding of why sexual reproduction has evolved
- 6. Read and understand scientific papers in the sexual selection literature
- 7. Create a poster that succinctly summarises information on a sexual selection topic

Assessment tasks

- Science Skills Quiz (Quiz 1)
- Science literacy assessment
- Practice poster review
- Poster assessment
- Peer Review
- Weekly Quizzes

Effective Communication

We want to develop in our students the ability to communicate and convey their views in forms effective with different audiences. We want our graduates to take with them the capability to read, listen, question, gather and evaluate information resources in a variety of formats, assess, write clearly, speak effectively, and to use visual communication and communication technologies as appropriate.

This graduate capability is supported by:

Learning outcomes

- 1. Understand and use correct biological terminology
- 2. Explain the difference between asexual and sexual reproduction, and have an understanding of why sexual reproduction has evolved
- 3. Identify the various mating systems for both plants and animals, and the strategies used by males and females from each system
- 4. Recall specific examples of species from each of the mating systems presented during lectures
- 5. Outline and understand evolutionary processes, especially in relation to sexual selection (rather than natural selection)
- 6. Read and understand scientific papers in the sexual selection literature
- 7. Create a poster that succinctly summarises information on a sexual selection topic

Assessment tasks

- Science Skills Quiz (Quiz 1)
- Science literacy assessment
- Practice poster review
- Poster assessment

Engaged and Ethical Local and Global citizens

As local citizens our graduates will be aware of indigenous perspectives and of the nation's historical context. They will be engaged with the challenges of contemporary society and with knowledge and ideas. We want our graduates to have respect for diversity, to be open-minded, sensitive to others and inclusive, and to be open to other cultures and perspectives: they should have a level of cultural literacy. Our graduates should be aware of disadvantage and social justice, and be willing to participate to help create a wiser and better society.

This graduate capability is supported by:

Learning outcomes

- 1. Understand and use correct biological terminology
- 3. Identify the various mating systems for both plants and animals, and the strategies used by males and females from each system
- 4. Recall specific examples of species from each of the mating systems presented during lectures
- 5. Outline and understand evolutionary processes, especially in relation to sexual selection (rather than natural selection)
- 6. Read and understand scientific papers in the sexual selection literature

- 7. Create a poster that succinctly summarises information on a sexual selection topic

Assessment tasks

- Science Skills Quiz (Quiz 1)
- Science literacy assessment
- Practice poster review
- Poster assessment

Socially and Environmentally Active and Responsible

We want our graduates to be aware of and have respect for self and others; to be able to work with others as a leader and a team player; to have a sense of connectedness with others and country; and to have a sense of mutual obligation. Our graduates should be informed and active participants in moving society towards sustainability.

This graduate capability is supported by:

Learning outcomes

- 1. Understand and use correct biological terminology
- 2. Explain the difference between asexual and sexual reproduction, and have an understanding of why sexual reproduction has evolved
- 3. Identify the various mating systems for both plants and animals, and the strategies used by males and females from each system
- 4. Recall specific examples of species from each of the mating systems presented during lectures
- 5. Outline and understand evolutionary processes, especially in relation to sexual selection (rather than natural selection)
- 6. Read and understand scientific papers in the sexual selection literature
- 7. Create a poster that succinctly summarises information on a sexual selection topic

Assessment tasks

- Science literacy assessment
- Practice poster review
- Poster assessment
- Peer Review

Changes from Previous Offering

In 2018 and 2019 S2 there will be no practical tutorials run. Therefore, information presented in those practicals will be put online powerpoint tutorials and Echo 360 recordings. Due to this change poster assignments will be done individually vs. in pairs formed in tutorial groups as done prior to 2018.

Quizzes will be released weekly on information presented from week 2-11. However, there are two completion due dates for the quizzes. **Quiz 2-6: Due 16-September and Quiz 7-11: Due 11-Nov**

Textbook questions have been replaced with science literacy assessments. Textbook reading is still required, with questions from the textbook readings incorporated into the weekly quizzes.

Changes since First Published

| Date | Description |
|------------|--|
| 24/07/2019 | Clarified the poster / peer review point values. |