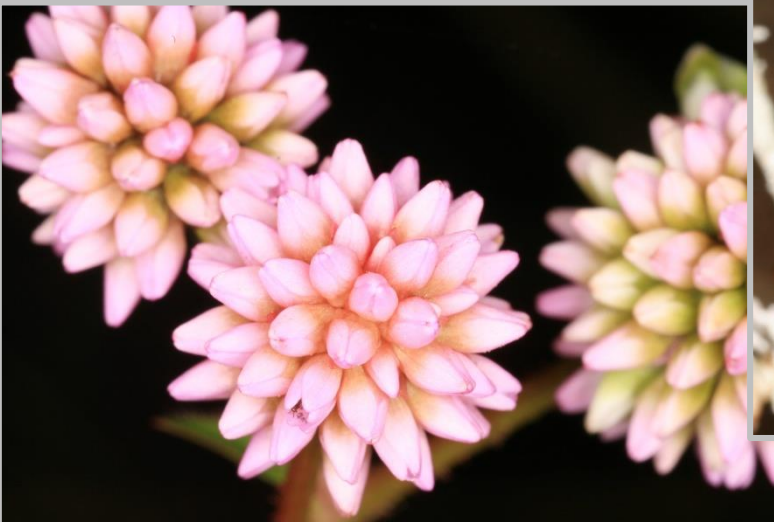


# Ecology & Biodiversity

School of Biological Sciences

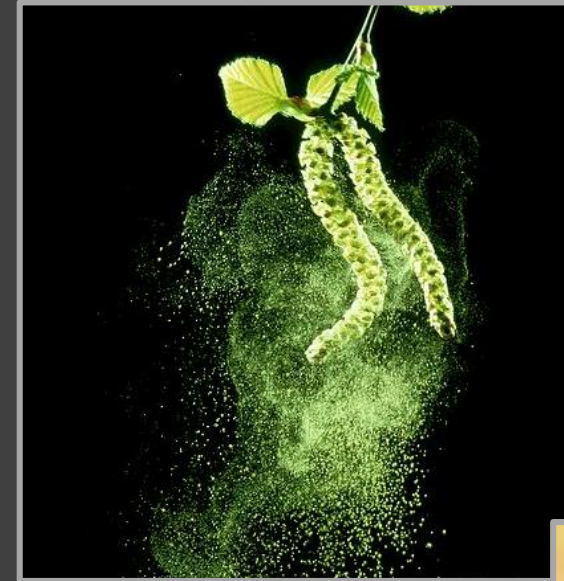


# Ecology & Biodiversity (Intensive, Major & Minor)

4-year curriculum



- Diversity of Life
- Interactions between species & their environment
- Regional & global threats on biodiversity





# Why choosing this major?

**Interest in Science**

**Curious about biology, nature & conservation**

**Enthusiastic about exploring the natural world**

**Love fieldwork and/or laboratory work**

**Concerned about global environmental issues and protection of nature**





# What will you learn?

**Broad knowledge in ecology, evolution and conservation**

**Skills to work independently & in team**

**Develop analytical and critical skills**

**Communication skills**

**Understanding of local & global environmental issues**

1<sup>st</sup> Year  
2<sup>nd</sup> Year

BIOL1110 From molecules to cells

BIOL1309 Evolutionary diversity

SCNC1111 Scientific method and reasoning

SCNC1112 Fundamentals of modern science

CCC

BIOL2102 Biostatistics

BIOL2103 Biological sciences laboratory course

BIOL2306 Ecology and evolution

ENVS2002 Environmental data analysis

CCC

**20 core and elective courses**  
**Small classes (12-30 students)**

**65% of courses with field components**

4<sup>th</sup> Year

BIOL4991 Ecology & biodiversity project (12 credits)

BIOL3991 Directed studies in ecology & biodiversity

BIOL4861 Ecology & biodiversity internship

BIOL4304 Ecosystem functioning & services (21)

BIOL4302 Environmental impact assessment

1<sup>st</sup> Sem.  
2<sup>nd</sup> Sem.

**Capstone**

- Disciplinary Core
- Disciplinary Elective
- Every other year (year taught)
- Field course included

# **Intensive Major in Ecology & Biodiversity**

**Accredited degree by the**



**Royal Society of  
Biology**

# **Intensive Major in Ecology & Biodiversity**



Royal Society of  
**Biology**

- **Diploma with increased international visibility & recognition**
- **Membership**
  - **Access to an international network of professionals**
  - **Discount on selected life science titles and professional development courses**
- **Insurance of excellency in teaching and learning**



## 1. Introductory level courses (60 credits)

### *Science Foundation Courses (12 credits)*

SCNC1111 Scientific method and reasoning

SCNC1112 Fundamentals of modern science

### *Disciplinary Courses (48 credits)*

BIOL1110 From molecules to cells

BIOL2102 Biostatistics

BIOL2306 Ecology and evolution

**EASC1401 Blue Planet**

BIOL1309 Evolutionary diversity

BIOL2103 Biological sciences laboratory course

ENVS2002 Environmental data analysis

**One chemistry course: CHEM1041 or 1042**





## 2. Advanced level courses (72 credits)

BIOL3302 Systematics and phylogenetics

BIOL3301 Marine biology

BIOL3319 Tropical terrestrial ecology

**BIOL3101 Animal behaviour**

**BIOL3303 Conservation ecology**

*Plus at least 42 credits (7 courses) selected from the following:*

BIOL3305 Tropical & temperate marine ecology

BIOL3314 Plant structure and evolution

BIOL3318 Experimental intertidal ecology

BIOL3408 Genetics

BIOL3419 Insect ecology

BIOL3506 Evolutionary biology

BIOL4302 Environmental impact assessment

BIOL4304 Ecosystem functioning & services

BIOL4505 Oyster aquaculture

ENVS3019 Urban ecology

ENVS3020 Global change ecology

BIOL3328 Nearshore marine & estuarine ecol.



## 3. Capstone requirement (12 credits)

*Core capstone course*

BIOL4991 Ecology & biodiversity project (12)

*Elective capstone course (optional)*

BIOL3991 Directed studies in ecology & biodiversity (6)

## **Total Intensive Major: 144 credits**

*For the most updated curriculum structure, please visit*

<https://webapp.science.hku.hk/sr4/servlet/enquiry?frmid=MenuP>



# **Minor in Marine Biology**

**(36 credits)**



## 1. Introductory level courses (12 credits)

## 2. Disciplinary Courses (12 credits)

BIOL1309 Evolutionary diversity (6)

BIOL2306 Ecology and evolution (6)

ENVS1301 Environmental life science (6)

## 3. Advanced level courses (24 credits)

BIOL3301 Marine biology (6)

ENVS3313 Environmental oceanography (6)

*Disciplinary electives 12 credits (2 courses) from the following:*

BIOL3303 Conservation ecology

BIOL3318 Experimental intertidal ecology

BIOL3305 Tropical & temperate marine ecology

BIOL3328 Nearshore marine & estuarine ecol.

# A diverse and international team



**Prof. Richard Saunders**  
Plant ecology & evolution



**Prof. Gray Williams**  
Intertidal Ecology



**Dr. David Baker**  
Coral reef ecology



**Dr. Tim Bonebrake**  
Global change ecology



**Dr. Stefano Cannicci**  
Mangrove ecology



**Dr. Benoit Guénard**  
Insect ecology



**Dr. Bayden Russell**  
Marine ecology



**Dr. Rajan Vengatesen**  
Ocean acidification

# A diverse and international team



Dr. Mo  
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17 World-class researchers



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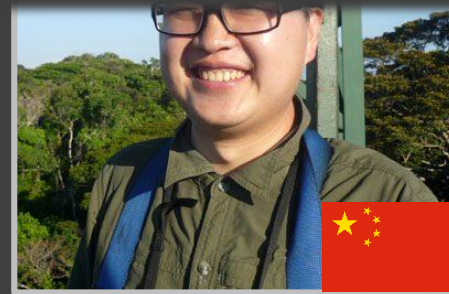
> 1000 publications in ecology & conservation



Dr. Celia Schunter  
Population genetics



Dr. Simon Sin  
Animal Behaviour



Dr. Jin Wu  
Plant remote sensing



Dr. Billy Hau  
Ecological restoration



Dr. Caroline Dingle  
Forensic Ecology

# *Ecology & Evolution*

- Introduction to the interaction between organisms and their environment and the central role of evolution
- Understand and explain the significance of nature using scientific methods



# *Ecology & Evolution*

- 5 days field course!
- Study both marine and terrestrial ecosystems & organisms of Hong Kong
- Familiarize with scientific methods to study organisms and their environments





# Hands on learning

16 courses with field courses offered

*Marine ecology*

*Terrestrial ecology*

*Coastal ecology*

*Freshwater ecology*



# Overseas field courses

- Australia
- British Columbia (Canada)
- Hainan (China)
- Malaysia
- Philippines
- Sri Lanka
- South Africa



# Make an impact!

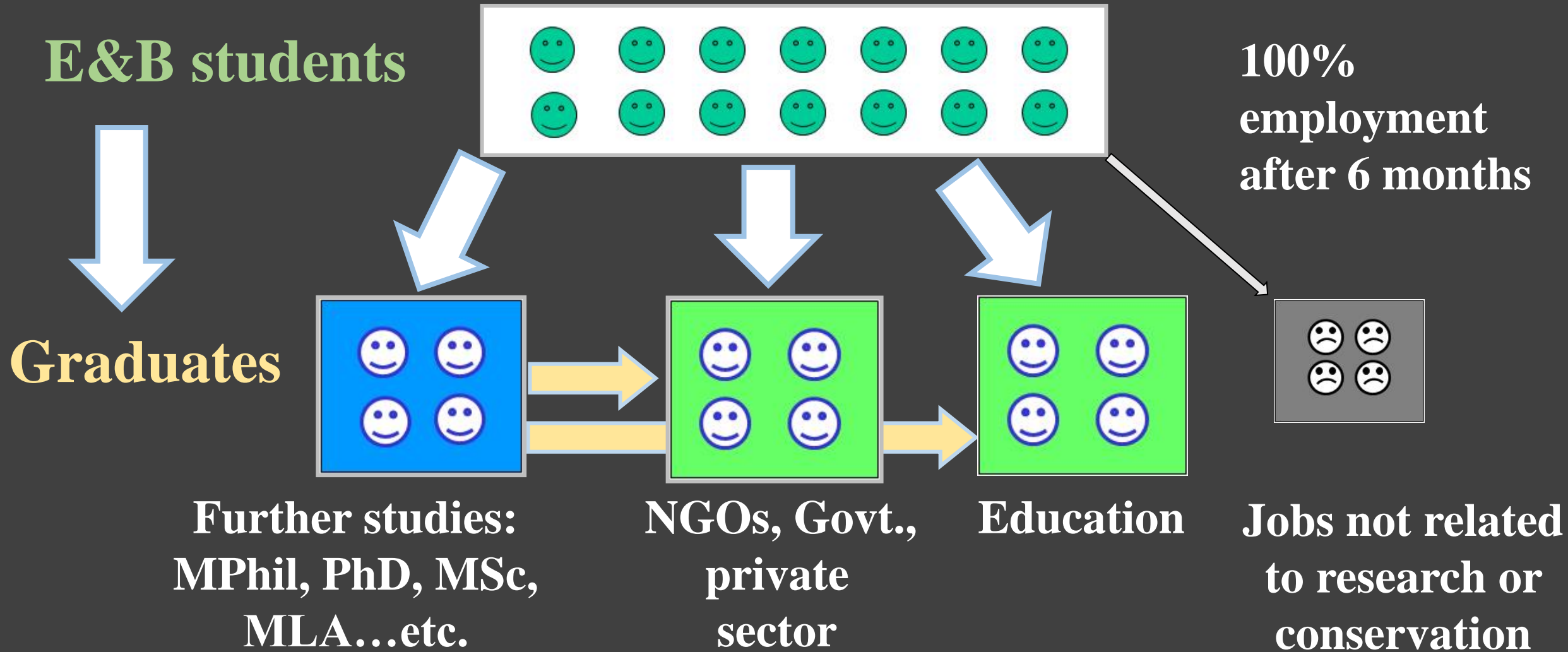
Many opportunities to engage into research as an undergraduate among one of > 20 laboratories!



Swire  
Institute of  
Marine  
Science



# Building your future career



**Thank you!**

