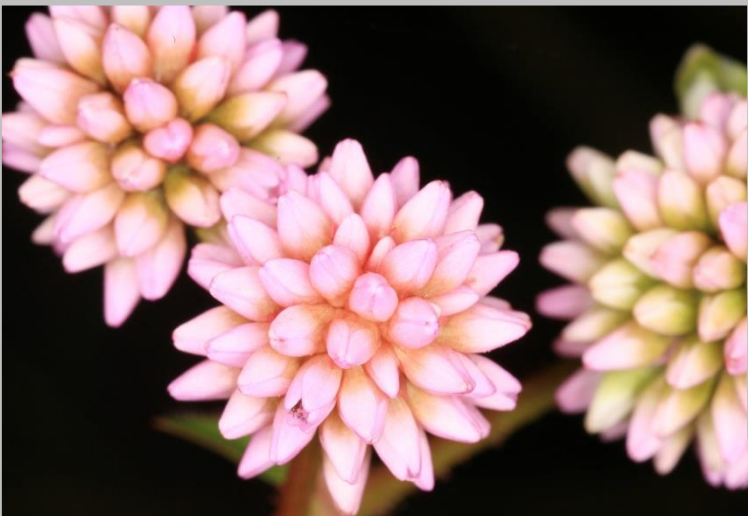


Ecology & Biodiversity

School of Biological Sciences

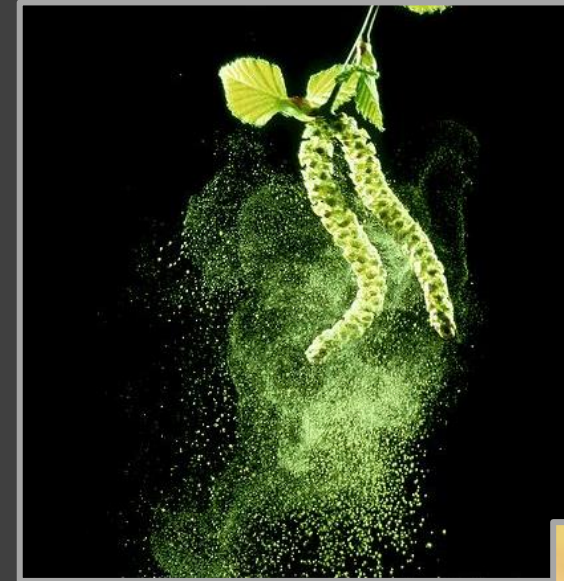


Ecology & Biodiversity (Intensive, Major & Minor)

4-year curriculum



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





Why choose this major?

Interest in Science

Curious about biology, nature & conservation

Enthusiastic about exploring the natural world

– lots of opportunities to get out there!

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

1st Year
2nd 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

4th Year

BIOL4991 Ecology & biodiversity project (12credits)

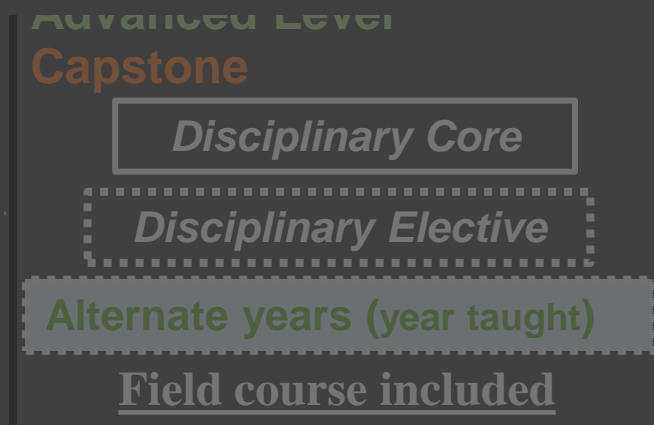
BIOL3991 Directed studies in ecology & biodiversity

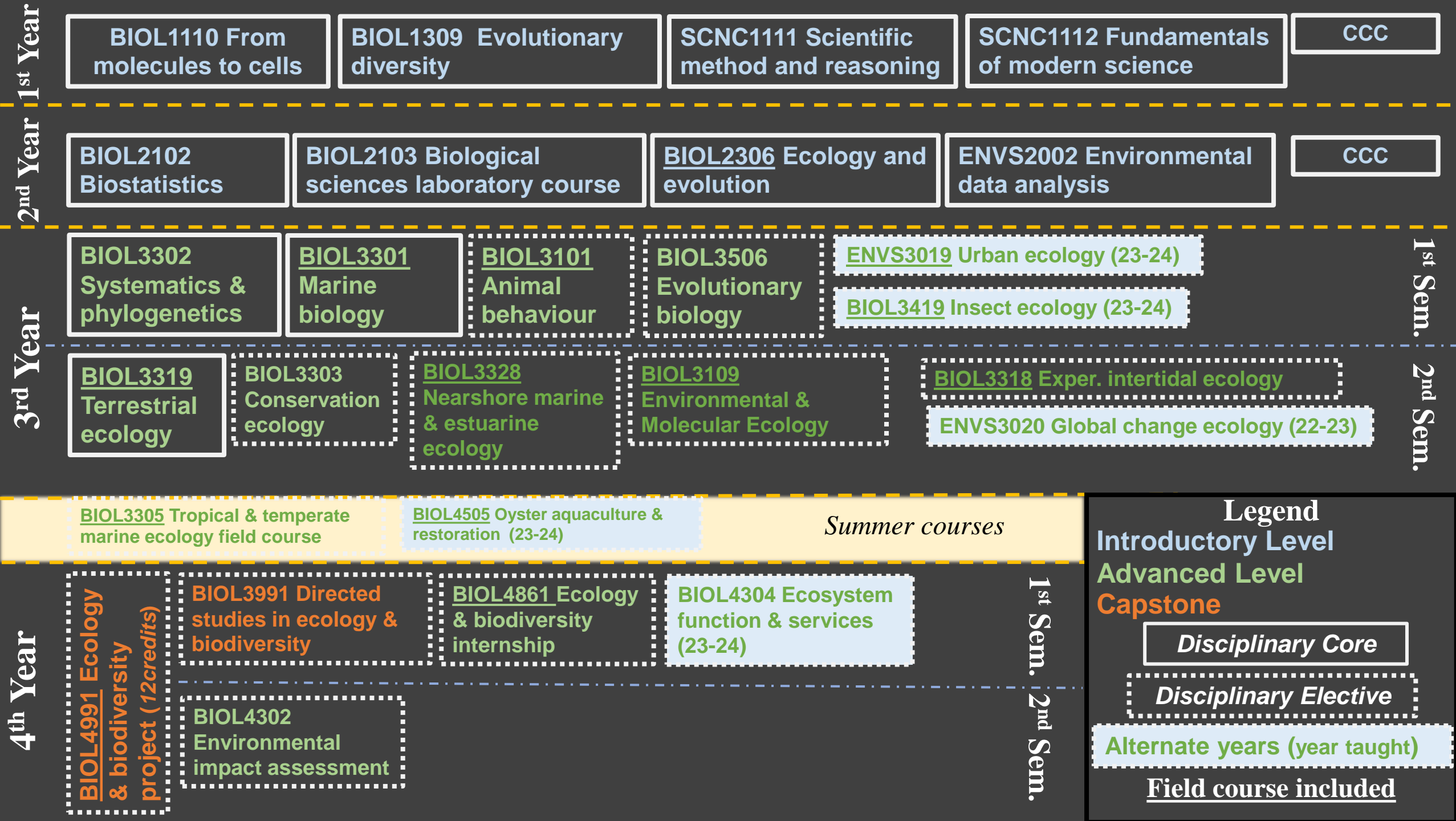
BIOL4861 Ecology & biodiversity internship

BIOL4304 Ecosystem function & services (23-24)

BIOL4302 Environmental impact assessment

1st Sem. 2nd Sem.





Legend

- Introductory Level
- Advanced Level
- Capstone
- Disciplinary Core
- Disciplinary Elective
- Alternate years (year taught)
- Field course included

1st Year
2nd 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

New elective courses coming from 2024/25

BIOL3305 Tropical & temperate marine ecology field course

BIOL4505 Oyster aquaculture & restoration (23-24)

Summer courses

BIOL4991 Ecology & biodiversity project (12credits)

BIOL3991 Directed studies in ecology & biodiversity

BIOL4861 Ecology & biodiversity internship

BIOL4304 Ecosystem function & services (23-24)

BIOL4302 Environmental impact assessment

1st Sem.
2nd Sem.

Legend

Introductory Level

Advanced Level

Capstone

Disciplinary Core

Disciplinary Elective

Alternate years (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**
- **Accredited excellence 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:

BIOL3109 Environmental Microbiology

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



18 World-class researchers

Pro
Evo

e
gy

> 1000 publications in ecology & conservation



Dr. Benoit Guénard
Insect ecology



Dr. Alice Hughes
Biodiversity & conservation



Dr. Bayden Russell
Marine ecology



Dr. Rajan Vengatesen
Ocean acidification

A diverse and international team



Prof. Jula Merila
Evolution



Prof. Gray Williams
Intertidal Ecology



Dr. David Baker
Coral reef ecology



Prof. Tim Bonebrake
Global change ecology



Dr. Benoit Guénard
Insect ecology



Dr. Alice Hughes
Biodiversity & conservation



Dr. Bayden Russell
Marine ecology



Dr. Rajan Vengatesen
Ocean acidification

A diverse and international team



Dr. Moriaki Yasuhara
Deep sea ecology



Dr. Louise Ashton
Ecosystem function



Dr. J. D. Gaitán-Espitia
Ecophysiology



Dr. Hannah Mumby
Behavioural ecology



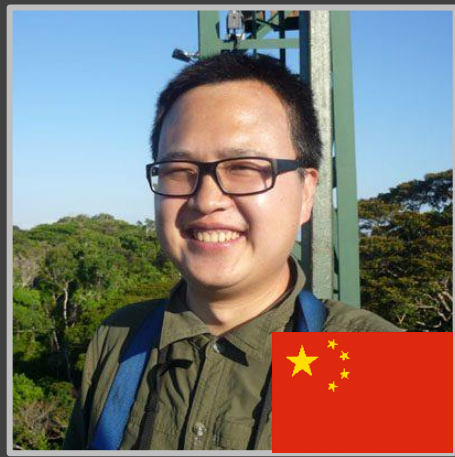
Dr. Celia Schunter
Population genetics



Dr. Matthew Seymour
Environmental DNA



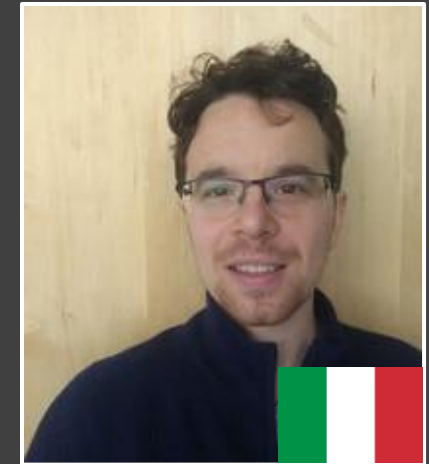
Dr. Simon Sin
Animal Behaviour



Dr. Jin Wu
Plant remote sensing



Dr. Billy Hau
Ecological restoration



Dr. Paolo Momigliano
Conservation genetics

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

15 courses with field components offered

Marine ecology

Terrestrial ecology

Coastal ecology

Freshwater ecology



Overseas field courses

- Australia
- Borneo
- Hainan (China)
- Malaysia
- Philippines
- Sri Lanka
- South Africa
- USA

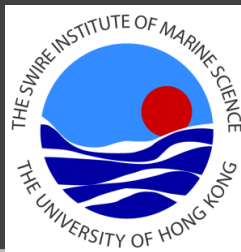


Make an impact!

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

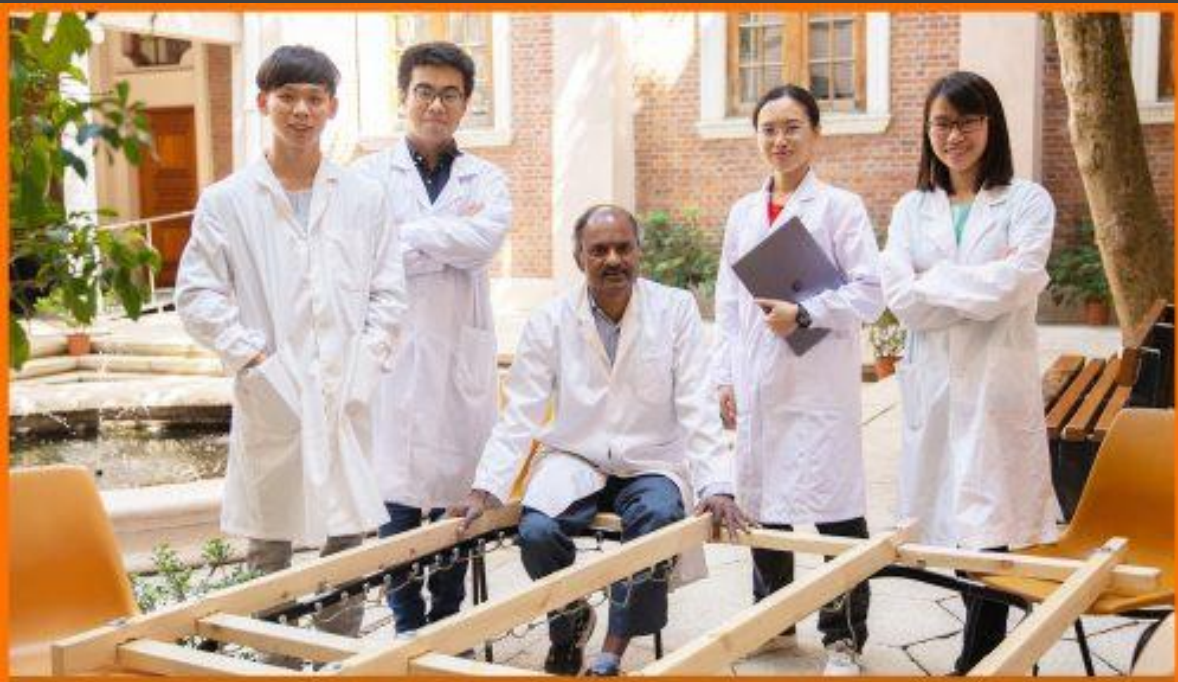


Swire
Institute of
Marine
Science

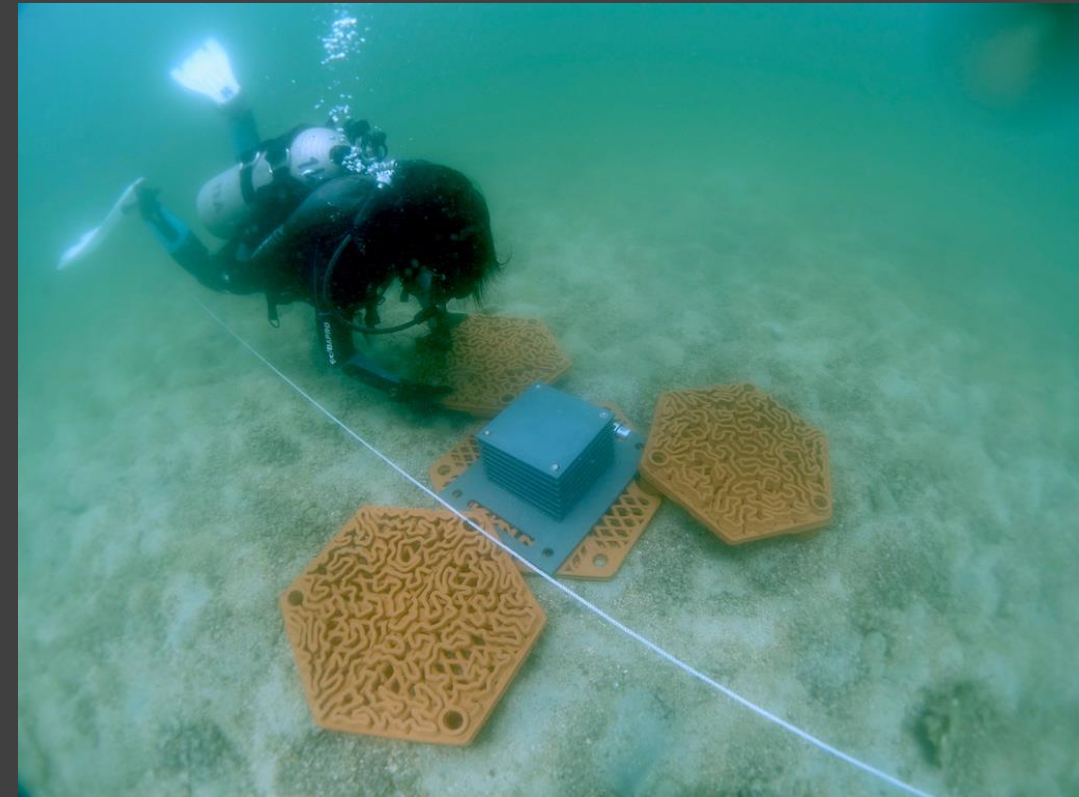


Make an impact!

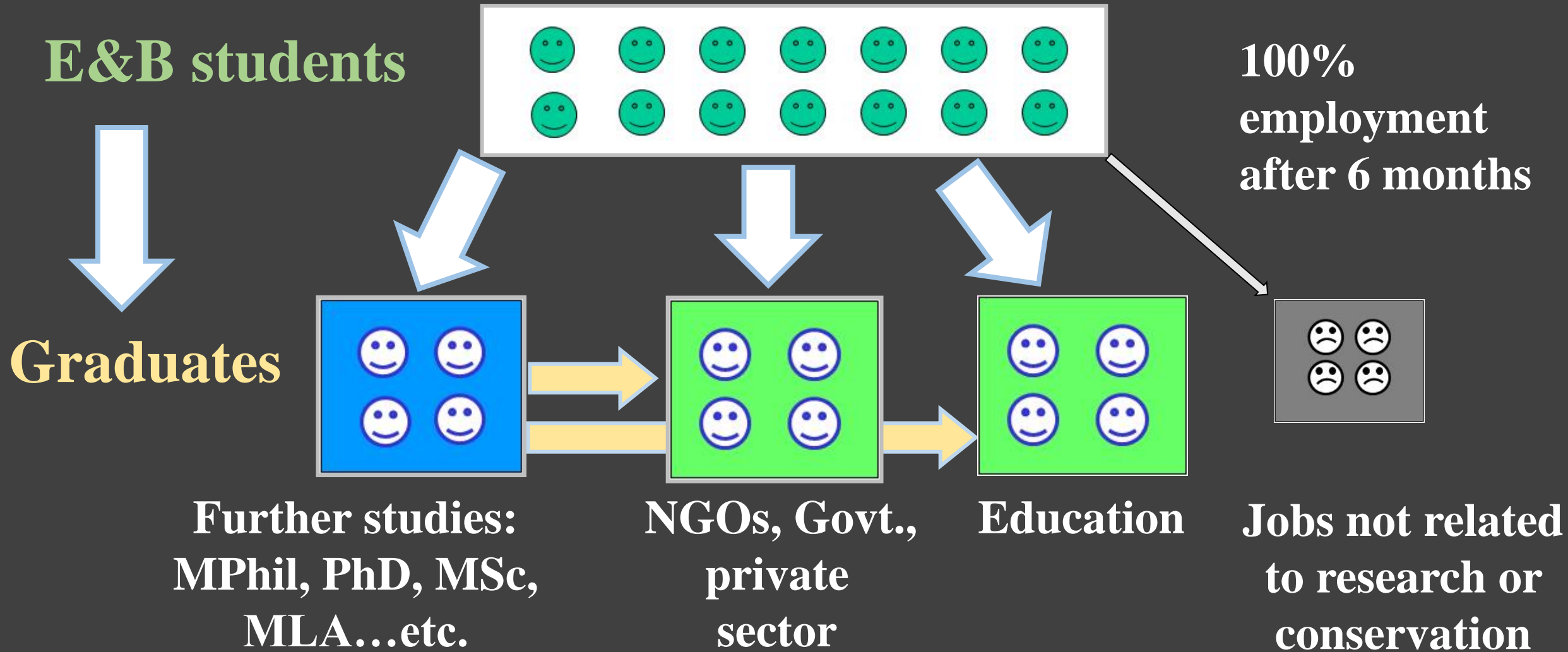
Opportunities to engage with industry,
start-ups, commercial opportunities.



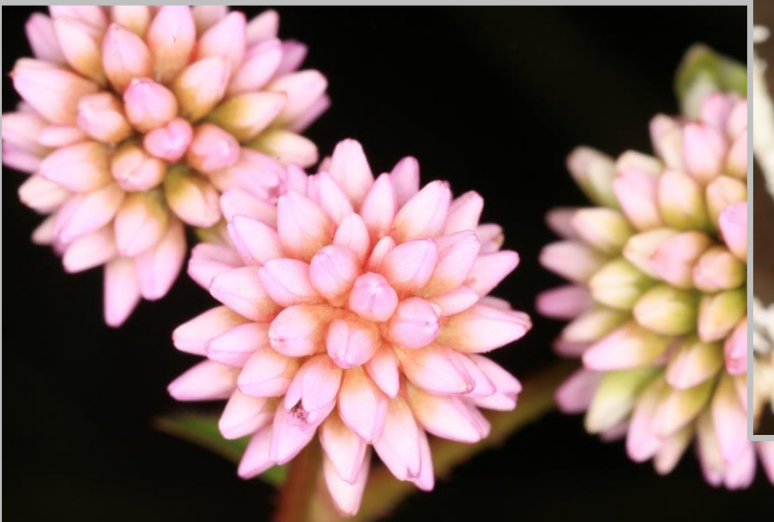
Members of the Soonlution team:
(from left) Calvin Ma Hui, Meko Law Ho-ka, Dr Thiyagarajan Vengatesen, Abigail Zhao Ziwei,
Tsun Shueman, with a prototype of the raft.



Building your future career



Thank you!



Thank you!

