

## IAN Z.W. CHAN

Doctoral Candidate

Experimental Marine Ecology Laboratory, National University of Singapore

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www.ianzwchan.com

### RESEARCH & WORK EXPERIENCE

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#### **Graduate & Undergraduate Researcher (Supervisor: Peter A. Todd, PhD) 2013–Present**

*Experimental Marine Ecology Laboratory, National University of Singapore, Singapore*

- Behavioural & Marine Ecology
  - Created a definition for and wrote a software package to measure animal colour patterns.
  - Performed SCUBA-based and rocky shore experiments on coral reefs, fish and other animals.
- Awarded a competitive research grant worth S\$128,800.
- Planned, managed and executed a research project: produced one (1) published article, three (3) manuscripts currently in review and two (2) more in preparation (one as first author).

#### **Intern**

**Nov 2011–Jan 2012 & May 2014**

*Global Connections Café & Education Centre, Thailand*

- Helped to set up a new social enterprise in Thailand, a café and English language education centre, contributing at every level: from furniture assembly to decisions on strategic business direction.

#### **Research Intern (Supervisor: Franz B. Pichler, PhD)**

**Sep 2005– Feb 2006**

*University of Auckland, New Zealand*

- Cell Biology: characterised bacterial growth properties to improve the activated sludge process.

#### **Student Researcher (Supervisor: Ng Hian Cheong, PhD)**

**2004**

*Temasek Polytechnic, Singapore*

- Microbiology: performed extraction, purification and binding assays involving *Escherichia coli* J-proteins to create a diagnostic kit for the presence of the bacterium.

### EDUCATION

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#### **Ph.D. in Sensory and Behavioural Ecology**

**2014–Present**

*National University of Singapore, Singapore*

- Thesis (submitted): “Defining and quantifying animal colour patterns”.
- Strong secondary focus on Marine Ecology and Computer Programming.
- President’s Graduate Fellow.

#### **B.Sc. (First Class Honours) in Life Sciences & Business Management**

**2010–2014**

*National University of Singapore, Singapore*

- Life Science Major: specialised in Environmental Biology.
- Management Major: took modules on accounting (financial and managerial), marketing, organisational effectiveness and design, economics (micro and macro) and entrepreneurship.
- Fraser & Neave Book Prize & Dean’s List for outstanding academic achievement.

**Diploma (with Merit) in Biotechnology (Biomolecular Sciences)**

2003–2006

Temasek Polytechnic, Singapore

- Bronze Medal, CASE Award &amp; Honours List (all years) for outstanding academic achievement.

**ACADEMIC PUBLICATIONS**

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Published or submitted

Lim, A.Y.H.<sup>1</sup>, Chan, I.Z.W.<sup>1</sup>, Carrasco, L.R. & Todd, P.A. (in review). Independent effects of hue and luminance in aposematism. Submitted.

<sup>1</sup> Co-first authors

Chan, I.Z.W., Chang, J.J.M, Huang, D. & Todd, P.A (in review). Colour pattern measurements successfully differentiate two cryptic *Peronia* spp. Submitted.

Chan, I.Z.W., Stevens, M. & Todd, P.A. (2018). PAT-GEOM: a software package for the analysis of animal colour pattern. *Methods in Ecology and Evolution*, published online (awaiting inclusion in an issue).

Chan, I.Z.W., Stevens, M. & Todd, P.A. (2016). Quantifying shell pattern and colour polymorphism in the button snail *Umbonium vestiariium* (Mollusca: Gastropoda: Trochacea) and comparing morph frequencies between two populations using the Mantel test. *Raffles Bulletin of Zoology*, Supplement No. 32: 22–32.

In preparation

Bauman, A., Dunshea, G., Fong, J., Chan, I.Z.W., Todd, P.A & Hoey, A. (in preparation). Predator avoidance influences herbivore foraging behaviour. To be submitted in Jan 2019.

Chan, I.Z.W., Stevens, M. & Todd, P.A. (in preparation). Defining and quantifying animal colour patterns. To be submitted in Feb 2019.

**ACADEMIC HONOURS AND AWARDS**

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<b>President's Graduate Fellow</b> , National University of Singapore	2014–2018
<b>Runner-up Best Oral Presentation</b> , 21 <sup>st</sup> Biological Sciences Graduate Congress	2016
<b>Best Oral Presentation</b> , 19 <sup>th</sup> Biological Sciences Graduate Congress	2014
<b>Fraser &amp; Neave Book Prize</b> , National University of Singapore	2014
<b>Dean's List</b> (semesters 3 and 7), National University of Singapore	2010–2014
<b>Bronze Medal</b> , Temasek Polytechnic	2006
<b>CASE Prize</b> , Temasek Polytechnic	2006
<b>Honours List</b> (all years), Temasek Polytechnic	2003–2006

**LEADERSHIP EXPERIENCE / COMMUNITY INVOLVEMENT**

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**Chairman**, Organising Committee, 22<sup>nd</sup> Biological Sciences Graduate Congress 2017  
- Organised a 3-day international conference with over 200 participants from India, Taiwan, Singapore and other ASEAN countries.

**President**, Department of Biological Sciences Graduate Students' Society 2016–2017  
- Represented the 250-strong student body: instated a Constitution and started several initiatives, such

as the “Understudy Teaching Assistant” scheme and a streamlining of administrative regulations.

**Research Mentor**, Department of Biological Sciences, National University of Singapore 2014–2018  
- Trained over 70 first to third-year undergraduate students and mentored one Honours student and one research intern.

**Humanitarian Aid Volunteer**, SEED Ministries Ltd. 2008–Present  
- Organise visits to orphanages and schools and disaster relief efforts in third-world countries such as India, Nepal and Myanmar; convene conferences to raise funds and promote awareness.

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## LANGUAGE SKILLS

English (native), Mandarin (good), French (good), Malay (spoken only)

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## REFERENCES

### **Dr Peter A. Todd**

*Associate Professor, National University of Singapore*

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Singapore 117543.

### **Dr Liou Yih Cherng**

*Associate Professor and Deputy Head of Department, National University of Singapore*

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