

# ABS FORUM

15 November 2013, Seoul, Republic of Korea

## Current state of ABS in Singapore

By Wendy Yap, National Biodiversity Centre  
National Parks Board, Singapore



# Introduction

- Biodiversity in Singapore
  - 22 Nature Areas, including 4 Nature Reserves
    - Small area – 88km<sup>2</sup> or 12% of Singapore’s area
    - New species still being described
    - Rediscoveries and new records

## No. of species

2800 sp. of plants	364 sp. of birds	295 sp. of butterflies
98 sp. of reptiles	52 sp. of mammals	28 sp. of amphibians
255 sp. of hard corals	>100 sp. of reef fish	117 sp. of dragonflies

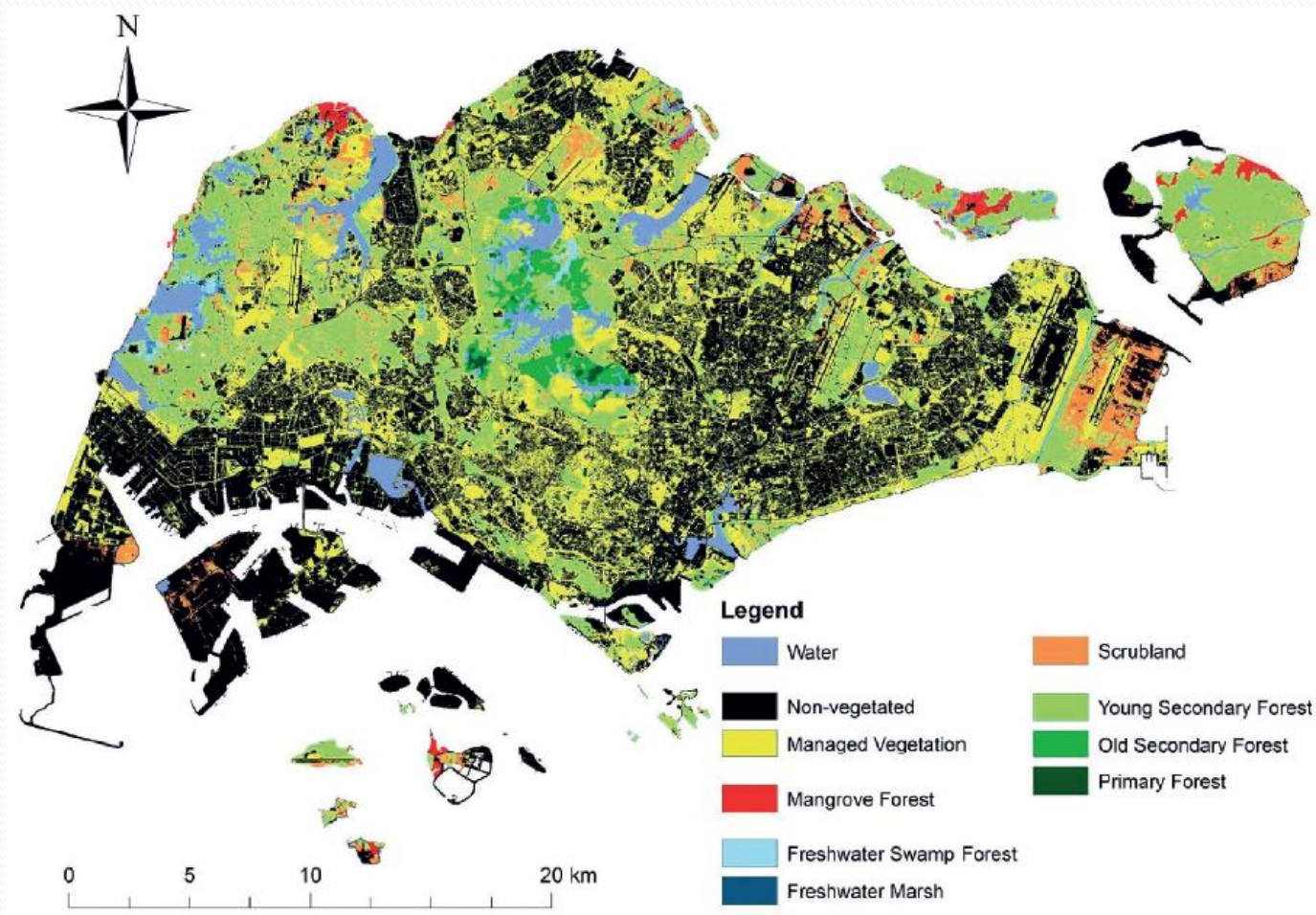
## Natural Areas Survey (2006 – 2007)

- 11 out of 23 (50%) seagrass sp. in the Indo-Pacific Region
- 35 new records (species not previously recorded in S’pore)
- 7 re-discovered sp. (species not sighted for the last 50 yrs)



# Where is the biodiversity?

- Vegetation map of Singapore (Yee et al., 2011-2012)



# Biodiversity knows no bounds

- Land owners where biodiversity can be found:
  - National Parks Board (NParks)
  - Ministry of Defence (MINDEF)
  - Singapore Land Authority (SLA)
  - Public Utilities Board (PUB)
  - Sentosa Development Corporation (SDC)
  - Jurong Town Corporation (JTC)
  - National Environment Agency (NEA)
  - People's Association (PA)
  - Housing Development Board (HDB)/Town Councils

# Coordinating for biodiversity

## NParks

- Agency managing biodiversity related issues
- National Focal Point for the CBD
- Administers ABS issues
- Maintains most natural areas of Singapore
  - Nature Reserves
  - Parks
  - Park Connectors
  - Coastal areas
  - Streetside vegetation
- Monitors other areas

# Inter-agency task force on ABS:

- National Parks Board (NParks, task force chair)
- Intellectual Property Office of Singapore (IPOS)
- Economic Development Board (EDB)
- Attorney-General's Chambers (AGC)
- Agency for Science, Technology and Research (A\*STAR)
- Ministry of National Development (MND)
- Ministry of Foreign Affairs (MFA)
- Ministry of Trade and Industry (MTI)
- Ministry of Law (MinLaw)
- Agri-Food and Veterinary Authority of Singapore (AVA)

# Users of Biodiversity

- Who are the Researchers in Singapore?
  - Academic Institutions:
    - National University of Singapore (NUS)
    - National Institute of Education (NIE)
    - Nanyang Technological University (NTU)
    - Overseas institutions
    - Secondary schools, Junior Colleges, Polytechnics
  - NGOs, individuals
  - Industry
    - Pharmaceutical companies
    - Research Institutes
    - Consultancy firms

# Legislation/Policies on ABS

- National Biodiversity Strategy and Action Plan (NBSAP, 2009)
  - Embodies objectives of the CBD
  - Strategy 2: Consider biodiversity issues in policy and decision-making – strengthen the current processes on ABS to ensure that biodiversity conservation is considered when granting access to Singapore’s natural genetic resources
- Legislation:
  - Parks and Trees Act 2005
    - Not specific to ABS
- Current policy: commercial vs non-commercial research



Home » Biodiversity » Research Legislation

Like 0 Tweet 0 g+1 0 Share

- » Home
- » About NBC
- » Biodiversity Information
  - » BIOME
  - » Red Data Book 2008
  - » Flora&FaunaWeb
  - » Species List
  - » Wildlife-attracting Plants
- » Biodiversity Conservation
  - » Invasive Alien Species
  - » Initiatives
- » CMBS
- » Animal Cam
- » Greening Schools for Biodiversity
- » Research
- » Links

**Legislation administered by the National Parks Board**

Click [here](#) to access the legislation administered by NParks

**Research Permits**

The National Parks Board recognises the importance of research in increasing the level of knowledge of Singapore's wildlife. Scientific research provides crucial information needed for strategic planning, management, decision-making, identification of information gaps and basis for establishing programmes for long-term ecological monitoring and sustainability of biological diversity. To facilitate research, permits are issued under the authority of the National Parks Board Act (Cap. 198A) and the Parks and Trees Act 2005 (Act 4 of 2005) and the Parks and Trees Regulation 2005.

[DOWNLOAD APPLICATION FORM FOR RESEARCH PERMIT](#)

**Here are some frequently asked questions pertaining to research permits.**

- ▶ Who needs to apply for a research permit?
- ▶ What types of activity require a research permit?
- ▶ Do I have to pay a fee for the research permit application?
- ▶ What information must I supply?
- ▶ How do I submit my research permit application?
- ▶ Who do I submit my research permit application to?
- ▶ How long will it take to obtain my research permit?
- ▶ How will I know if my application has been successful?
- ▶ Can the research permit be transferred to other people or institutions?
- ▶ Why do I need to contact a National Parks Board ("NParks") officer or report to the Ranger Station/Information Kiosk on site, at the start and end of my visit?
- ▶ In addition to having the research permit, why do I need to wear a research pass while out in the field?
- ▶ Can I collect samples / specimens not specified in my research permit?
- ▶ Can I collect samples/specimens in areas that are not specified in my research permit?
- ▶ Can I continue to use an expired research permit? What is the validity period of the research permit?
- ▶ What must I do to bring my specimen collections out of Singapore?
- ▶ What must I do to bring specimen collections into Singapore?
- ▶ Is the research permit valid for commercial bio-prospecting purposes?

# Non-commercial research

- Research permit system for non-commercial research
  - Allow/disallow access to Nature Reserves and Parks
    - Areas of great biodiversity significance
  - Administrative coordinator for access to areas managed/owned by other agencies/entities
  - Inputs on methodology, what collections allowed
  - Returns: Information on Biodiversity
    - Data, reports, recommendations on the site, organisms, habitats, ecosystems studied
    - Useful for management, conservation

# Non-commercial research

- Research permit system for non-commercial research
  - Declaration of commercial intent

Is this research for  Commercial  Non-commercial purposes?

- Clauses indicating limitations of non-commercial research

The permit issued is valid for taxonomic / ecological research purposes only, and not for bio-prospecting / commercial venture. Please contact us for the terms if the latter is pursued as a follow-up to this study.

# Commercial research

- Agreements with institutions and private companies
  - projects with high potential for commercial application
  - Provision of PIC
  - Negotiation of MAT
    - Licensed to use GR for specific purpose only
- Benefits are negotiated under the contract
  - Monetary returns only if researchers profit from the access to genetic resources
- Licensed to use the genetic resource for very specific purposes and duration

# Research Permit (1)



## National Parks Board

**Headquarters**  
Singapore Botanic Gardens  
1 Cluny Road  
Singapore 259569  
Tel: (65) 64717808, Telefax: (65) 64723033  
Website: <http://www.nparks.gov.sg>  
Email: [nparks\\_mailbox@nparks.gov.sg](mailto:nparks_mailbox@nparks.gov.sg)

Statutory Board

NP/RP13-084

14 October 2013

Mr. N Sivasothi  
Dept of Biological Sciences  
National University of Singapore  
14 Science Drive 4  
Singapore 117543

Dear Mr Sivasothi,

### PERMISSION TO STUDY FEEDING ECOLOGY OF *EPISESARMA* SPP. AT VARIOUS MANGROVES IN SINGAPORE

- 1 We refer to your request to study the feeding ecology of mangrove tree-climbing crab *Episesarma* spp..
- 2 NParks management has, in-principle, no objections to your request for the stated purpose.
- 3 Please kindly contact the following people at least **5 days** before conducting your studies:

For Pasir Ris Park:

Mr Mohamad bin Yusoff ([Mohamad\\_Yusoff@NParks.gov.sg](mailto:Mohamad_Yusoff@NParks.gov.sg) / Tel 64653379 / Hp 91185314)

Please note that the requested area of Lim Chu Kang and Mandai mangroves are considered state land, managed by SLA, and is subject to the Terms and Conditions outlined in Annex B.

- 4 Please consult us before communicating any details of your study to media representatives, or in any form of publications such as weblogs or websites. This is to ensure that the information reaching the public is mutually consistent and does not contain sensitive information that may affect our conservation efforts, such as the locations of rare plants and/or animals.
- 5 Please ensure that all sampling markings / equipment are removed immediately from the sampling location after each field session.



## National Parks Board

**Headquarters**  
Singapore Botanic Gardens  
1 Cluny Road  
Singapore 259569  
Tel: (65) 64717808, Telefax: (65) 64723033  
Website: <http://www.nparks.gov.sg>  
Email: [nparks\\_mailbox@nparks.gov.sg](mailto:nparks_mailbox@nparks.gov.sg)

Statutory Board

- 6 As far as possible, please try to avoid conducting your research during peak visiting hours to parks: weekends and public holidays, and during the periods of 7-9.30 am and 5-7 pm on weekdays.
- 7 The permit issued is valid for taxonomic / ecological research purposes only, and not for bio-prospecting / commercial venture. Please contact us for the terms if the latter is pursued as a follow-up to this study.
- 8 Kindly submit a copy of your report / paper(s) / field data records / list of specimens collected / specimens lodged at the end of your project study to Samantha\_LAI@NParks.gov.sg or send your report to the National Biodiversity Centre, National Parks Board, Singapore Botanic Gardens, 1 Cluny Road, Singapore 259569, for our record and reference.
- 9 All other conditions applicable are set out in Annex A.

Yours sincerely,

Ms Samantha Lai  
Biodiversity Manager (National Biodiversity Centre)  
for CHIEF EXECUTIVE OFFICER  
NATIONAL PARKS BOARD

	<b>Authorized Research Pass</b>	
Permit No: NP/RP13-084		Permit Expiry Date: 31/10/2014
Name: Chu Si Min Jasmine		
NRIC No.: S9112834I		
Field Locality: Pasir Ris Park, Lim Chu Kang, and Mandai mangroves		

# Research Permit (2)



## National Parks Board

**Headquarters**  
Singapore Botanic Gardens  
1 Cluny Road  
Singapore 259569  
Tel: (65) 64717808, Telefax: (65) 64723033  
Website: <http://www.nparks.gov.sg>  
Email: [nparks\\_mailbox@nparks.gov.sg](mailto:nparks_mailbox@nparks.gov.sg)



NP/RP13-084

14 October 2013

### PERMISSION TO STUDY FEEDING ECOLOGY OF *EPISASARMA* SPP. AT VARIOUS MANGROVES IN SINGAPORE

- 1 Chu Si Min Jasmine (NRIC: S9112834I), Lee Bee Yan (NRIC: S8924670D), Gavan Leong Wai-Kit (NRIC: S8911310E), Klara Chua Mei Chin (NRIC: S8929249B) and Wu Bokai (NRIC: S8971313G) of the National University of Singapore are hereby permitted to conduct field collections at Pasir Ris Park, Lim Chu Kang, and Mandai mangroves.
- 2 The researchers are allowed to estimate crab abundance by visual counts along a 20 × 2 m belt transect. They are also allowed to capture, mark and release the crabs within the transect.
- 3 Leaf litter within ten 1m<sup>2</sup> quadrats may be collected weekly at each site. A maximum of 8 litterfall traps may be deployed at each site as well.
- 4 15 individuals of *Episarma versicolor*, *E. singaporensis* and *E. chengtongensis* may be collected for laboratory feeding experiments to estimate the consumption rate of leaf litter for each species.
- 5 This permit is valid from the date of issue to the 31<sup>st</sup> October 2014.

Yours sincerely,

Ms Samantha Lai  
Biodiversity Manager (National Biodiversity Centre)  
for CHIEF EXECUTIVE OFFICER  
NATIONAL PARKS BOARD



## National Parks Board

**Headquarters**  
Singapore Botanic Gardens  
1 Cluny Road  
Singapore 259569  
Tel: (65) 64717808, Telefax: (65) 64723033  
Website: <http://www.nparks.gov.sg>  
Email: [nparks\\_mailbox@nparks.gov.sg](mailto:nparks_mailbox@nparks.gov.sg)



### Annex A: Conditions applicable for research in areas under NParks' jurisdiction

- A. The Researchers and their team are to give prior notice of field surveys/schedule of visits to NParks Management upon approval of the research application. The Researchers and all field assistants are also to report/inform by phone the Ranger Counter/Information Kiosk at the field venue (if applicable), before and after each field visit.
- B. NParks does not warrant the safety or suitability of any location in which any research or survey is carried out. The Researchers and their team shall be responsible for their own personal safety and that of their property and equipment. NParks shall not be liable for any personal injuries suffered by the Researchers and their team, or for any damage to or loss of equipment or property, whether arising in tort, contract, or howsoever caused. The Researchers and their team will not in any way hold NParks responsible for any liability, personal injuries, loss of or damage to property or equipment, expenses or costs which they may sustain, incur or receive as a result of conducting research under this permit. For safety reasons, all field work shall be suspended in the event of inclement weather.
- C. A copy of the research permit must be carried at all times while conducting the study at the field venue and must be produced upon request. The research passes issued are to be worn at all times while at the field venue, and neither the permit nor the research passes are transferrable. Only individuals listed on the permit and have valid research passes are allowed to access the field sites to conduct research or collect specimens. The Researchers are only to collect/capture and handle those material/organisms explicitly approved under the research permit and any collection should be limited to what is minimally required for the research project. Researchers without the permit letter in their possession may be denied entry into the field locality or may be asked to leave the field locality, and any specimens/samples already in their possession may be confiscated.
- D. The Researchers must take into account the delicate ecosystem of the field venue (minimum clearance and disturbance to the immediate surroundings) and of other visitors' perception and use of the park/reserve while conducting field work. Hence, Researchers are encouraged to keep their research team small and NOT to schedule field work during weekends and public holidays, where higher visitorship is normally expected, unless their research requires public participation.
- E. All foreign materials, including any authorized "Research In Progress" signage, must be removed after each field survey, unless approval has been given for a more permanent setting. In that case, all equipment/sampling markings left out in the field must be labelled with the permit number, Researcher's name and contact information. These must also be removed upon completion of all field surveys.
- F. Any maps/data of field sites provided by NParks for the Researchers are confidential and specific for their use in their research project. These are not to be circulated/used/accessed otherwise after the completion of the research project.
- G. Complimentary admission will be granted to research pass holders for scheduled field visits for those field venues where admission charges apply. Otherwise, in the event of unscheduled visit, the Researchers will have to pay the normal entry fee.
- H. The Researchers are required to submit annual reports on the project findings to the National Biodiversity Centre for review, and also for renewal of research permit, if required. Upon completion of the research study, a copy of the project report must also be submitted to the National Biodiversity Centre for NParks' record and reference within one month.
- I. Drafts for papers resulting from the research study are to be submitted to the National Biodiversity Centre for review prior to any publication. Two hard copies or a digital soft copy of the subsequent publication are to be submitted to the National Biodiversity Centre (NParks) for the depository of biological information on Singapore's flora and fauna.
- J. A copy of the field data recorded/report or a list of specimen collected, inclusive of location and date, and other field observations (such as frequency/density count, flowering/fruitletting/nesting phenology) should be submitted to the National Biodiversity Centre after each field visit.
- K. All Researchers must consult NParks prior to communicating any details of the study under this permit to media representatives, or in any form of publications such as weblogs or websites.
- L. The primary set of floral specimens of fertile/sterile plant materials should be deposited at the Singapore Botanic Gardens Herbarium (SING), while the primary set of faunal specimens acquired should be deposited at the Raffles Museum of Biodiversity Research (RMBR), National University of Singapore.



# National Consultation on the Nagoya Protocol

- ABS Roundtable, May 2012
  - Key objective – stakeholders aware of ABS and Nagoya Protocol
  - Dr. Geoff Burton (fellow with UNU-IAS)
    - Introduced the Nagoya Protocol, compliance options and advantages to Singapore
- Inter-Agency Consultation on Nagoya Protocol
  - 25 November 2013



Thank you.

