# Wildlife DNA Forensics Course

## Lecture A1

## Introduction to the course

No: A1	Lecturer: R. Ogden	
--------	--------------------	--

Date: 02/08/10

Introduction

This first lecture provides some background to the Darwin project and an overview of the course. It includes a description of the timetable for the week and an explanation of the different activities to be undertaken by enforcement and scientific participants.

We will discuss the aims and objectives for the week, the environment of the course and the key points we want everyone to take home.

Lecture Aims

- To learn about the three-year ASEAN Wildlife Forensics Network Darwin
   project
- To understand the course structure
- To introduce the course tutors and assistants
- To discuss course and domestic arrangements



Darwin Project				
Project history Wildlife DNA Forensics ASEAN-WEN regional UK Darwin Initiative – s	project – Malaysia 2005 (Perhilitan and Kimia) needs for enforcement support upports capacity building for CBD & CITES			
Project application proc	ess 2006-2009			
Project duration	September 2009 - August 2012			
Project cost	-£350,000 GBP (~500,000 USD)			
Partners:	TRACE, TRAFFIC SEA, ASEAN-WEN			
Additional Funding:	Royal Zoological Society of Scotland			

Ostassnes

## **Darwin Project**

Project aims and scope

- "To provide the ability for ASEAN countries to undertake coordinated wildlife forensic analysis for CITES enforcement operations and to deter further wildlife crime in the ASEAN region"
- · Establishing a wildlife forensics network
- Providing training to scientific and enforcement officers
- Building capacity in each country to support forensic applications
- Enabling ASEAN members to develop own identification methods
- Provide access to national and international resources

Outersweet

## **Course Aims**

#### Everyone

- Learn more about wildlife crime in the ASEAN region
- Raise awareness of forensic science
- Understand how it can be used in investigations
- Learn about the forensic process and the people involved
- Develop contact with people from your own country
- Develop contact with people from the ASEAN region
- · Begin to create a network of wildlife forensic practitioners

**O**ASIEM-WEN

## **Course Aims**

#### Enforcement officers

- Understand how best to collect and secure wildlife DNA evidence
- Learn how to identify items being illegally traded
- Learn about the range of forensic tests available
- · Develop links with scientific staff who can help you
- Examine the barriers to producing & using forensic evidence
- Understand how forensic evidence is treated by the legal system
- · Learn how to prepare and present forensic evidence

OREASYMEN

## **Course Aims**

#### Scientists

- Understand how best to collect and secure wildlife DNA evidence
- Learn the difference between research and forensic lab methods
- Follow the forensic process through the lab
- Develop links with enforcement staff understand their needs
- Learn about the range of DNA techniques that can be applied to wildlife forensic investigations
- · Understand how to prepare and present forensic evidence

OWNERS WER

	Cours	e Structu	re
Three parts to t	he course:	All participants Scientists (S) Enforcement of	(A) fficers (E)
Lectures	Core theory / in	nformation	50 minutes
Practicals	Hands-on expe	erience	1-2 hours
Case Studies	Informal semination	ars / Examples	40 minutes
Discussion	Dedicated sess	sions or general	time - important

#### 



Timetable					
Scientists	Enforcement Officers				
Practical S1: Sample receipt	Lecture E2: Forensic options				
Practical S2: Item examination	Practical E2: Case scenarios				
Morning tea break					
Practical S3: DNA extraction	Group discussion: Using forenside				
Lecture S1: Traceability	Group discussion: Oaling forenaics				
Lunch					
Practical S4: PCR amplification					
Practical S5: DNA Sequencing	Practical E3: Identifying animal parts				
Practical S6: Sequence software					
Scientists	Enforcement Officers				
Practical S7: Sequence clean-up	Lecture E3: Prosecution Issues				
Practical S8: mtDNA ID tigers	Lecture E4: Prosecutor's Experience				
Morning tea break					
Practical S9: Sequence analysis	Practical E4: Prosecution practical				
Lunch					
Lecture A5: Witness Statements, Reporting and Presentation					
Practical A2: Presenting forensic evidence					
	0				
	Scientists Practical 51: Sample receipt Practical 52: Item examination Moning use break Practical 32: DNA estraction Lecture 51: Traceability Lunch Practical 34: PCR amplification Practical 55: Requences oftware Scientists Practical 57: Sequence clean-up Practical 57: Sequence clean-up Practical 57: Sequence clean-up Practical 57: Sequence clean-up Practical 57: Sequence analysis Lunch Lecture A5: Witness Statements, Re Practical A2: Presenting forensic evid				



## Timetable

Fri 6th Aug	Scientists	Enforcement Officers	
09.00 - 10.00	Lecture A6: Laboratory models for wildlife DNA forensics		
10.00 - 11.00	Lecture A7: Building a forensic network for ASEAN-WEN		
11.00 - 11.30	Morning tea break		
11.30 - 12.00	Closing ceremony & Certificates		
12.00 - 13.00	Lunch and depart		

## Ossesswer

## Course Tutors

- . Ross McEwing (TRACE)
  - Wildlife DNA forensics
  - DNA evidence & lab techniques
  - Forensic applications

### . Rob Ogden (TRACE)

- Wildlife DNA forensics
- Data analysis, reporting
- Forensic applications
- . Chris Shepherd and Claire Beastall (TRAFFIC SEA)
  - Introduction to the Illegal Wildlife Trade
  - Species Identification Sheets
  - Identifying animal parts

Osecsever

## **Course Assistants**

- . Jen Mailley (TRACE): Project Manager
- · Leonie Grenfell (TRACE): Lab assistant
- Noorainie Awang Anak (TRAFFIC SEA): Senior Programme Officer
- . Officers from Department of Wildlife and National Parks

They are here to help. Please ask if you have any questions

Owner wer

## **Course Environment**

- The more you get involved, the more you will benefit
- · Opportunity to meet people, ask questions, discuss problems
- Informal, polite, friendly, respectful
- 50% direct learning, 50% informal learning
- Very diverse participants cannot address every specific need, but can advise and help on specific cases.

Ouseas wes









## **Domestic Arrangements**

- Information in workbook
- · Lunches, tea breaks, dinners
- Free time, evening lectures
- Airport transfers
- Per diem
- Local advice / assistance
- Timing

Oxeen wer

