

**Short Course on DNA Barcoding Protocols**  
**Botanical Garden Auditorium, Institute of Biology, UNAM**  
**Sunday, 8 November 2009**

9:00-9:15: Introduction to barcoding. (**Amy Driskell**)

- What is the 'barcoding pipeline'?
- What data and object need to be tracked through the pipeline?
- What possible beginning and end points exist?

9:15-9:25: Barcode data standard (**David Schindel**)

**Part 1: Specimen Acquisition and Handling**

9:25-9:30: Introduction to the issues (**Chris Meyer**)

9:30-10:00: Museum Harvesting (**Rodolphe Rougerie and Alex Borisenko**)

- Data quality: e.g. photographs, georeferences
- Destructive sampling
- Museum matters: vouchering, recataloging, archiving

10:00-10:30: Field Collection (**Sally Adamowicz and Chris Meyer**)

- Legal issues: permitting, exporting
- Logistics
- Data quality and acquisition
- Changes to collection and preservation methods

10:30-11:00: Coffee break

11:00-11:10 Current Campaigns and Goals (**David Schindel**)

11:10-12:30: Parallel groups for discussion and Q&A:

- Protists and fungi (**TBD**)
- Plants (**Michelle Van Der Bank**)
- Marine invertebrates (**Chris Meyer**)
- Terrestrial invertebrates (**Rodolphe Rougerie**)
- Vertebrates (**Alex Borisenko and Robert Hanner**)

**Part 2: Laboratory Methods and Data Management**

2:00-2:45: DNA Extraction (**Dario Lijtmaer and Pablo Tubaro**)

- Equipment

- Taxon- and target-specific methods
- Contamination
- Testing and quality control
- Storage and shipment of DNA extracts

2:45 -3:30: PCR amplification (**Oris Sanjur**)

- Equipment, methods and reagents
- Taxon- and target-specific methods
- Contamination
- Testing and quality control

3:30 – 4:00: Coffee break

4:00 – 4:30: Information Management and data quality (**Amy Driskell**)

- Tracking progress through laboratory pipeline
- Keeping all required products together
- Consistent data assessment
- Analysis-lab feed-back loop

### **Part 3: High-throughput processes**

4:30 – 5:00: BIO, Univ of Guelph (**Natalia Ivanova**)