

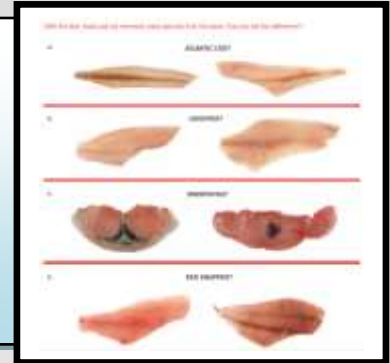


## **SPECIES IDENTIFICATION**

**MUTTON, CHICKEN, COW, SHEEP, PORK AND HORSES**

Food Authentication and Food Safety are a Growing Concern.

- Food fraud is a universal problem to tackle.
- **Mislabelling of Food**
- Consumers are cheated by paying for a species that they are not actually getting.
- **Fraud hampers conservation efforts (especially in sea food items).**
- Enhances illegal trade activities



**FOOD CONTAMINATION AND ADULTERATION CAN LEAD TO**

- **Physiological Effect**
  - **Health Impacts, Toxic or allergic effects.**
- **Economical loss**
  - **Robs hard earned Profits**
  - **Detrimental to Business**
- **Social and Ethical Effects**
  - **Widespread Public Fear**
  - **Loss of public confidence on food safety**
- **Religious Effect**
  - **Some religious beliefs do not allow food adulteration.**



**Services Offered to...**

- **Food Industry**
- **Meat Products, Ready to eat food.**
- **Sausages and mixed food items.**
- **Canned and frozen food items.**
- **Animal Feed for animal species content.**
- **Cosmetic Products**
- **Catering Companies**
- **Food and Raw Material Suppliers.**



**DNA testing has the answer...**

- Accurately detect the presence or absence of animal/plant species in the food item.
- **Quantify the species content to meet the regulations of allowable limits.**
- Identify different species present in food, feed and cosmetics.

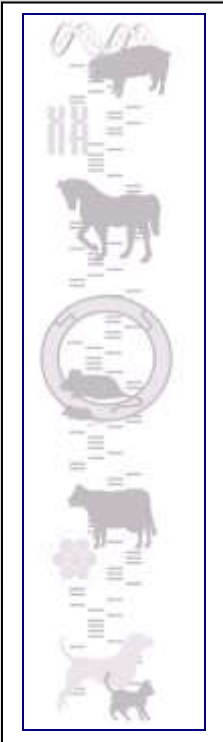


ABC's Species Identification by DNA testing is supported by the Food Safety Initiative of Dubai Municipality, Food Control Department.

We were a part of Dubai International Food Safety Conference 2013.

# SPECIES IDENTIFICATION

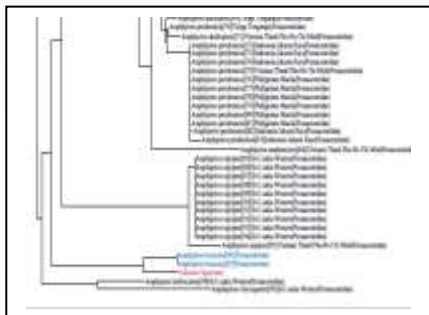
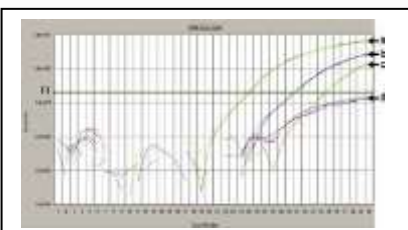
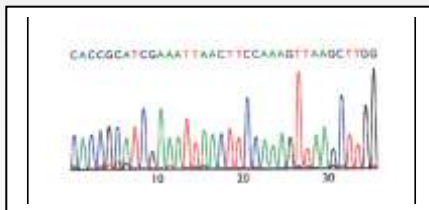
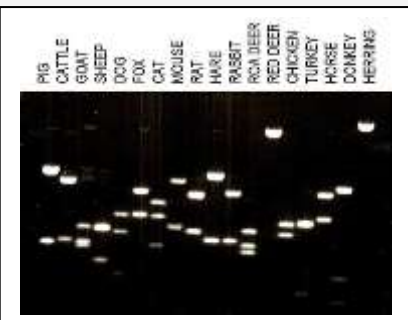
## by DNA BARCODING



**FOOD AUTHENTICATION** – Identify the food ingredients to acceptable limits. Our technology is backed by CCDB and US FDA procedures and samples are tested in our state of the art DNA laboratory.

**ILLEGAL TRADE** – DNA is used to identify and confirm the species of origin of items of evidence suspected of being involved in illegal commercialization or illegal trade as defined by the CITES convention or by the Local and other international bodies. Help check illegal trades, poaching, and threat to endangered animal species.

**BIODIVERSITY STUDY** - DNA barcoding can be used to understand the biodiversity of an animal or plant species found in various regions. The analysis helps in habitat management, conservation of native species and also understands the migration trends (in animals) and dispersal trends (in plants).



**BARCODE OF LIFE DATA SYSTEMS**  
Advancing species identification and discovery through the analysis of short, standardized gene regions.



The Barcode of Life System (BOLD) is an online environment that also facilitates management, analysis, and use of BOLD datasets. It consists of 3 components: BOLD3, BOLD2, and BOLD1 that each address the needs of various groups in the biodiversity community.

**MANAGEMENT & ANALYSIS**

BOLD3-IMM provides a repository for barcode records created with various tools. It serves as an online workspace for the BOLD barcode community.

**IDENTIFICATION ENGINE**

BOLD3-IDE provides a species identification tool that assigns DNA sequences from the Barcode region and returns a taxonomic assignment to the species level when possible.

**EXTERNAL CONNECTIVITY**

BOLD3-EDC provides a self-development and configuration tool that allows the Barcode community to integrate with the BOLD3 System. It reduces the burden of new barcode providers.



**ADVANCE BIOTECHNOLOGY CENTRE – PIONEER IN DNA BASED IDENTIFICATION**  
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