

A simple protocol to isolate DNA from Malaysian stork blood collected on FTA cards

Abstract

The blood of the Painted Storks (*Mycteria leucocephala*) and the Milky Storks (*M. cinerea*) from Malaysia were collected invasively from the breeding site. The blood was dropped on to FTA® cards and stored at room temperature. DNA was isolated from the FTA® cards through a modification of the Wizard DNA Purification kit (Promega) procedure and PCR was performed with 11 pairs of microsatellite primers of the American Wood Stork (*M. americana*). The collection of a drop of blood onto the card is superior to the usual practice of collecting about five ml of blood into a vacuum tube as it causes fewer traumas to these sensitive birds. Moreover, this collection procedure can be adopted for use in various wild animal species which are usually found in the remote areas of Malaysia as the sample collection cards can be transported back to the laboratory at room temperature. Our procedure allows the typing of several molecular genetic markers from just a drop of blood collected in the field and stored at room temperature alleviating the need for storage in expensive deep freezers or liquid nitrogen tanks. Collection of avian samples is no easy task as the birds are free flying.

Keyword: DNA; Blood