

Mimosa pigra - a threat to Bird life in Lochinvar National Park

I recently visited Lochinvar National park which is part of the Kafue flats IBA. This park is mainly known for its large numbers and species diversity of birds. Some of the birds found there are very rare and threatened with extinction. Wattled cranes and many other water birds are very easy to see at this site.

Unfortunately, the site is under various threats including *Mimosa pigra* - an invasive species.

The area infested with *Mimosa pigra* is very thickly invaded and has very few birds and other animals. According to the ZAWA ecologist at Lochinvar, Mr. Griffin Shanungu, fewer birds were observed in areas that are infested with mimosa compared to areas without mimosa as can be seen from the table below. Out of the 19,579 birds counted on the shorelines of the Chunga Lagoon in July 2007, 314 individuals (1.6%) were observed perched on mimosa or wading in the waters or floodplain grassland infested with the weed.

Table 1: A comparison of numbers and variety of water birds species between open floodplain and mimosa infested areas, July 2007.

	Open Floodplain	Mimosa infested areas
Number of Species	46	24
Number of Individuals	19,265	314

Source of data, Griffin Shanungu

Further reduction in the wetland area is likely to result in a significant reduction of the water birds population.

The loss of floodplain grassland to thick and impenetrable stands of mimosa has rendered reduced grazing pastures for the Kafue Lechwe resulting in some of them moving into the surrounding area where they risk being illegally hunted.



*Mimosa pigra in Lochinvar NP.
Picture by Kabuku Likando*

Exactly what is *Mimosa pigra*?

Mimosa pigra is an invasive species of the genus *Mimosa*, in the family Fabaceae. Other common names include: bashful plant, catclaw mimosa and black mimosa. It was first identified by Linnaeus, on the basis of its different leaf morphology. It is a leguminous shrub, which can reach up to 6m in height. The stem is greenish in young plants but becomes woody as the plant matures. It is armed with broad-based prickles. The leaves are bright green and bipinnate, consisting of a central prickly rachis. They fold up at night and when touched. Flowers are mauve or pink and their heads produce a cluster of 10 to 20 seed pods, which then mature and break into segments, each containing an oblong shaped seed. Hairs on the segments allow them to float on water and stick to fur or clothing, hence aiding in dispersal. *Mimosa* is hard seeded. Its seeds can survive for a very long time.

The plant is a noxious weed which has received international recognition because of its existing and potential impact on biological diversity. Currently, *Mimosa pigra* is replacing native vegetation on the floodplains in Lochnivar National park.

Some of the adverse effects of this weed are;

1. It produces dense thickets which compete for space and nutrients with fresh grasses used as pastures.
2. It prevents larger animals from accessing water,
3. Tourism is also affected through reduced area and access for tourism activities. Wildlife habitat and scenic areas are reduced.

Despite its detrimental impacts, *Mimosa pigra* is beneficial in the fixing of nitrogen into the soil and in turn increases soil fertility. Nutrients are redistributed from the lower soil profile to the surface. This may be beneficial for establishing vegetation after clearing *Mimosa*.

The detrimental effects are more than the benefits. It is important that this weed is managed before significant damage is done.

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