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## Unusual Case of *Senecio sceleratus* (Ragwort) Poisoning in an Ostrich (*Struthio camelus*) in Zimbabwe

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Sir,

I would like to take this opportunity to report an unusual case of poisoning from ingestion of *Senecio sceleratus* (Family: Compositae) in a 24-month-old ostrich cock farmed in Pomona, 26 km from Harare city centre, Zimbabwe. Poisonous plants including *Senecio* spp. can grow and spread rapidly in rangelands and pose potentially lethal problems for grazing livestock (1). The plant is widespread in Southern Africa and studies have been conducted in 4 species (2). Toxicology following ingestion of this plant has been reported previously in cattle (3,4), but to date there are no reports of its toxicology in Ratites. Three alkaloids were identified in this plant: retrorsine ( $\beta$ -longilobine), N-oxide isatidine and scleratine (3,5).

Ragwort, a perennial herb, grows to a height of about 91.50 cm. It is a glabrous, unbranched plant with alternate auriculate leaves, possessing inflorescences in a corymb of many small yellow-rayed heads that form achenes holding white bristles (6) (Figure). It is common in Harare, growing on the margins of vleis. I observed large concentrations of it growing in the grassy areas within and adjacent to the ostrich paddocks. Breeding ostriches were enclosed in breeding paddocks in ratios of 3 hens to 2 cocks.

The ostrich studied became progressively lethargic and presented with dark excrement. It exhibited swaying on its hind-legs and often rested its head on the paddock fencing. Its eyes were partially closed and discoloured yellow. It stopped eating and drinking and within 3 days

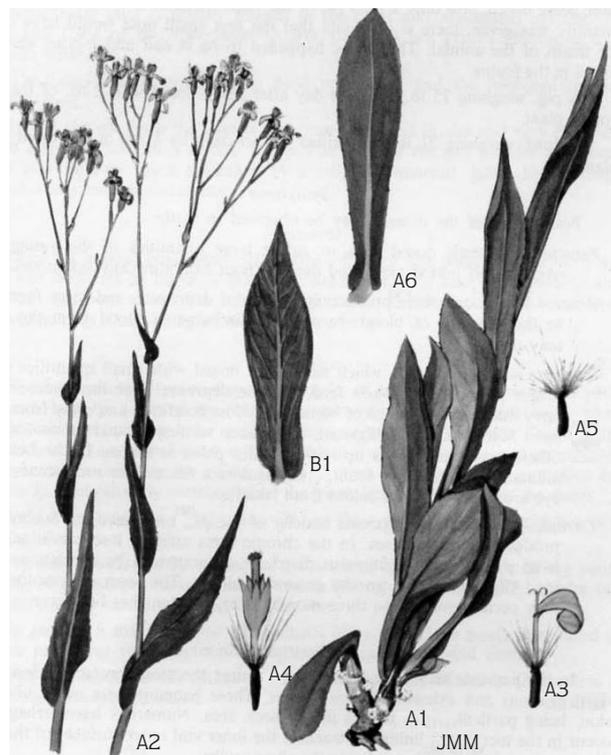


Figure. *Senecio sceleratus* showing the shoot, ray floret, disk floret, achene and leaves (reproduced with the permission of R.B. Drummond).

- A – *Senecio sceleratus*
- A1 – base of flowering shoot ( $\times \frac{1}{2}$ )
- A2 – top of flowering shoot ( $\times \frac{1}{2}$ )
- A3 – ray floret ( $\times \frac{3}{4}$ )
- A4 – disk floret ( $\times \frac{3}{4}$ )
- A5 – achene ( $\times \frac{2}{4}$ )
- A6 – leaf ( $\times \frac{1}{2}$ )
- B – *Senecio* sp., B1, leaf ( $\times \frac{1}{2}$ )

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from the onset of symptoms it was dead. A full post-mortem examination was conducted.

A cut was made through the neck and the trunk to expose the thoraco-abdominal viscera. Detailed morphological, anatomical and interior examinations of the respiratory, circulatory, gastro-intestinal and urogenital systems were made. There were extensive haemorrhages under the skin in the neck and in the mucous membrane lining the trachea, the pericardium, diaphragm and interperitoneal membrane. The oesophagus, proventriculus and gizzard had evidence of localised inflammation with an oedematous brownish discharge. Both the proximal and distal small intestinal sections exhibited massive haemorrhagic foci and in places the intestinal lining was separated from the wall by clotted blood. There was neither chyme nor food in the gut. The entire length of the large intestine (proximal,

mid and distal sections) also demonstrated recent haemorrhage. The liver was enlarged, soft and jaundiced. The lungs were filled with clear fluid. There was also fluid in the thoracic and abdominal cavities.

Suspected was subacute toxicity as a consequence of ingestion of *Senecio scleratus*. The uniqueness of this case was re-enforced by the farmer allowing his birds to roam about free-range in paddocks that were particularly grassy. Unfortunately he had not properly managed the surrounding veldt and allowed ragwort to spread into the paddocks. Annual veldt fires had encouraged the growth and encroachment of the weed in the locality. Clearly measures should be introduced to control its spread by mowing and slashing it as soon as it appears. The farmer should also ensure that sufficient quantities of supplementary feed are provided to discourage the birds from nibbling at the ragwort.

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