

The Retrospective Investigation of the Impacts of Alien Taxa on Human Health: A Case Study of Two Poison Information Centers

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Abstract : Alien species cause considerable negative impacts on biodiversity, economy and public health. Impacts of alien species on public health have received a degree of attention worldwide, largely in developed countries, but scarce in developing countries. Here, we provide a review of human exposures and poisonings cases from native and alien plant species reported to poison information centers. A retrospective review of the Tygerberg Poison Information Centre (TPIC) and Poisons Information Centre (PIC) at Red Cross War Memorial Children's Hospital (RCWMCH) was conducted over approximately 2-year period (1 June 2015 through to 06 March 2017). Combined, TPIC and PIC handled 626 cases during the 2-year period. Toxicity cases were more abundant in Gauteng (47.1%), followed by Western Cape (29.4%). The primary mechanism of injury was ingestion (96.7%), and all cases were predominantly accidental. Most reported cases involved infants (20.6%), with few fully-grown adults related cases (5.8%). Adults presented minor to moderate toxicity, while infants none to minor toxicity. We conclude that reported toxicity cases on human health are biased towards few alien species and that several cases relate to unknown species of mushrooms. Public awareness is essential to reducing the poisoning incidences.

Keywords : alien species, poisoning, invasive species, public health

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