Perspective

iMedPub Journals
www.imedpub.com

Journal of Medical Toxicology and Clinical Forensic Medicine

2023
Vol.9 No.1:41

The Geographical Distribution of These Poisonous Bird Species

Bannert Gyles *

Department of Bacterial Diseases, Veterinary Laboratories Agency, Addlestone, UK

Corresponding author: Bannert Gyles, Department of Bacterial Diseases, Veterinary Laboratories Agency, Addlestone, UK, E-mail: Gyles_b@vla.defra.gsi.gov.uk

Received date: December 21, 2022, Manuscript No. IPJMTCM-23-15606; **Editor assigned date:** December 23, 2022, PreQC No. IPJMTCM-23-15606 (PQ); **Reviewed date:** January 02, 2023, QC No. IPJMTCM-23-15606; **Revised date:** January 12, 2023, Manuscript No. IPJMTCM-23-15606 (R); **Published date:** January 19, 2023, DOI: 10.36648/ 2471-641.9.1.41

Citation: Gyles B (2023) The Geographical Distribution of These Poisonous Bird Species. J Med Toxicol Clin Forensic: Vol.9 No.1:41.

Description

Birds from all over the world have developed the ability to store toxic chemicals in their bodies, making them less appealing to humans or even fatal when ingested or touched. Humans rarely come into contact with poisonous bird species, but the poisons they produce can have serious health effects. Seven avian species were the focus of our literature search for this study: the different species of pitohuis, European quail, the blue-capped ifrita, the spur or spoor-winged goose, the North American ruffed grouse, the Brush bronzewings, and the European hoopoes and woodhoopoes Upupa epops Each poisonous bird's geographic distribution, toxin physiology and origin, clinical signs and symptoms, and, if available, human toxicity cases are discussed. Additionally, the birds' capacity to avoid self-intoxication is discussed.

Toxic Physiology

Our findings indicate that, with the exception of the European quail and North American ruffed grouse, most cases of contact with toxic birds result in mild symptoms. Apart from the hoopoes and woodhoopoes, we also discuss a variety of methods of toxin acquisition in these bird species. Who share a symbiotic relationship with bacteria in their uropygial glands that produce chemicals? In conclusion, the toxic physiology, clinical manifestations, and evolutionary understanding of avian toxins are all covered in depth in our research. In order to withstand the hostile environment of the animal kingdom, birds have developed a variety of adaptations. Some people have developed the ability to acquire toxic chemicals in their bodies, making them less palatable or even lethal when consumed, while others have developed camouflage to hide in their environment or developed increased agility to fly or run away from predators. In addition, some birds have formed symbiotic relationships with other organisms for the purposes of mutual survival and chemical protection against predators. Even though there are many animals in the animal kingdom that are poisonous, humans rarely come into contact with avian poisons, which can cause serious health problems.

Several species of birds have been described as poisonous or toxic to both animals and humans because they possess chemical defenses that contain or use behaviorally one or more chemical substances to ward off predators or parasites. This comprehensive review article will discuss common poisonous avian species like the Pitohuis, European quail, spur or spoor-winged goose, North American ruffed grouse, Brush bronzewings , European hoopoes, and woodhoopoes. The toxicological properties of common poisonous bird species will be emphasized in this manuscript. In addition to providing supportive care, specific poisoning treatments will be discussed. The evolutionary basis for these singular species' capacity to avoid self-intoxication will also be investigated.

Toxicological Properties of Common Poisonous Bird Species

Each avian species was included in the search terms: Pitohui genus which include hooded pitohui (Pitohui dichrous), variable pitohui, black pitohui, crested pitohui, rusty pitohui , white-bellied pitohui , blue-capped if the relevant avian species' toxin: monofluoroacetate, homobatrachotoxin, palasonin, cantharidin, demethylcantharidin, grayanotoxin, and additional keywords listed after each species: poison, toxins, chemical defense. We included both peer-reviewed and unreview manuscripts and research on toxic or poisonous avian species because we are aware of the limited amount of literature and research on these species. Gray literature, lay press, letters to the editor, and editorials were excluded. We ruled out articles that did not include a discussion of clinical presentations or toxicological poisoning in connection with the birds of interest. Our search and selection process did not have a time limit or a specific date range. ACD/ChemSketch was used to create chemical structures. Each bird species' high-resolution photographs were chosen from the Macaulay Library at the Cornell Lab of Ornithology and used with permission. The physiology and origin of each poisonous bird's toxin, in addition to clinical signs and symptoms of toxicity. Reveals each avian toxin's chemical structure. The geographical distribution of these poisonous bird species. The colorful Ifrita kowaldi and Pitohuis are native to New Guinea. There are six different species of Pitohuis, with the hooded and variable pitohuis being more toxic than other closely related species. The pitohui with hood can be recognized by its distinctive brick red belly and jet-black head. The rusty and white-bellied pitohui pitohui have no toxicity, whereas the black and crested pitohui pitohui do. Additionally native to New Guinea, the blue-capped ifrita is found only in high montane rainforests above 1,500 meters. The species has brownish-yellow

feathers and a blue and black crown. Although I. kowaldi belongs to a different family, their toxicity profile is comparable to that of the Pitohuis. Homobatrachotoxin, a single toxic alkaloid, was discovered during the initial examination of the birds' feathers and skin. A number of batrachotoxins are present in the Pitohuis and I. kowaldi, according to subsequent research. The theory behind the concentration of these toxins in the breast and belly feathers is that they can prevent predators from eating the bird itself and can also be transferred to nests and eggs, deterring predators that eat eggs. In addition, it has been hypothesized that the presence of toxins in the feathers enhances defense against ectoparasites.