RISK ASSESSMENT, POTENTIAL DISTRIBUTION, AND PUBLIC INTEREST OF ALLERGENIC WEED, COMMON RAGWEED *AMBROSIA ARTEMISIIFOLIA* L., INVASIVE TO SOUTH AFRICA

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Ambrosia artemisiifolia L., commonly known as common ragweed, is one of the world's widely distributed invasive vascular proliferous weed plants. The establishment of this plant is mainly associated with myriad introductory pathways, which is worrisome given that the species is expanding globally, including countries with limited resources. In this study, we use the Australian Weed Risk Assessment (AWRA) to determine the potential impacts of common ragweed in South Africa. Species distribution modelling (SDM) was applied to determine areas likely to be climatically suitable for this weed under current and future climatic scenarios. Lastly, we used Google Trend analysis to examine the global interest of online public members regarding invasive ragweed topics. The AWRA score was high (32/49) for this weed, suggesting high risk, particularly in the environment (Score: 23) and agricultural production sectors (Score: 24). Our SDM revealed that *A. artemisiifolia* has wide climatic tolerance and both current and future scenarios showed slight changes in predictions. Google trend analysis showed that common ragweed was the most trending term, with the highest relative search hits (100%) between 2004 and 2009. Common ragweeds and weeds (both ranked 100%) were the most related search queries, followed by ragweed allergy and allergies, with relative hits ranked 74% and 54%, respectively. Of the 17 countries and one island, the United States of America, Austria, Canada, and Saint Pierre and Miquelon Islands had the highest relative search hits, ranging between 75% and 100%. Our results recommended prioritising this species for clearing due to its high risk to the recipient system and climatic suitability. It is worth mentioning that incorporating Google trends in this study provided a vital understanding of human interest and behaviour towards invasive common ragweed on a global scale. We, therefore, recommended that common ragweed be included in the national list of prohibited species so that management and surveillance for early detection are provided before it expands to uninvaded ranges.

Keywords: biological invasions; legislation; pollen allergy; Google trend, Weed, common ragweed, *Ambrosia artemisiifolia*

DOI: 10.35885/1996-1499-18-1-168-172

Full text of the paper is published in Russian Journal of Biological Invasions. DOI: 10.31857/S207511172104XXXYYY

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