World Academy of Science, Engineering and Technology
International Journal of Pharmacological and Pharmaceutical Sciences
Vol:16, No:12, 2022

Molluscicidal Activity of Some Aqueous and Organic Extract from Some Asteraceae

Authors : Lineda Rouissat-Dahane, Abdelkrim Cheriti, Abbderazak Marouf, Reddy Kandappa H., Govender Patrick

Abstract : Natural phytochemicals extracted from folk herbal have drawn much attention in complementary and alternative medicine, and the plant kingdom is considered for developing new molluscicide. The aqueous and acetone extract of the aerial parts of some Asteraceae (Anvillea radiata, Bubonium graveolens, Launaea arborescens, Launaea nudicaulis and Warionia saharae) were investigated for its molluscicidal activity against Lymnaea acuminata showed significant molluscicidal activity with a median lethal concentration (LC50) of aqueous extract (8,178mg/ml) and organic extract 0.002µg/mL, which was indicated higher potency than the positive control, (LC50=100mg /mL for aqueous extract ; LC50=11.6 µg/mL for organic extract). Among the extract and their fractions, those of aerial parts of Launaea nudicaulis and Warionia saharae were found to exhibit significant molluscicidal activities. Among different solvent fractions of the acetone extract of Warionia saharae, the dichloromethane (DCM) soluble fraction showed the most potent molluscicidal activity against Lymnaea acuminata. Plants in species Anvillea radiata, Bubonium graveolens, Launaea arborescens, Launaea nudicaulis, and Warionia saharae produce a great variety of Flavonoids, Glucoside flavonoids, and Saponins that confer natural resistance against several pests. Most extracts were found to exhibit significant molluscicidal activity.

Keywords : acetone extract, aqueous extract, Asteraceae, molluscicidal activity, Lymnaea acuminata
Conference Title : ICAP 2022 : International Conference on Antibiotics and Phytochemistry
Conference Location : Istanbul, Türkiye
Conference Dates : December 20-21, 2022