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Short note

Halopeplis amplexicauis (Vahl) Ung.-Sternb (Chenopodiaceae Family). Re-collection in Zarqa of Jordan

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Abstract: *Halopeplis amplexicaulis* is an annual halophytic species that is widespread in salty habitats throughout the countries of the Mediterranean. This species is a Naturalized exotic. In Jordan it was reported that this species was dominant in Wadi Araba, Wadi Rum, Eastern Desert, Shaumari and Al-Azraq Oasis, in the desert (saharo-arabian) around the Dead Sea region, and Abar al Hazim . This species might be considered as invader one in such chorotype area, in that it is distributed in the Mediterranean Woodlands and Shrub lands, Deserts and extreme deserts. as the study area considered a dry habit, and on account of its special edaphic and water requirements, it is rare to see this species in such habitat.

Keywords: *Halopeplis amplexicaulis*, *Chenopodiaceae*, *Biodiversity*.

The genus *Halopeplis* is in the family *Chenopodiaceae* in the major group Angiosperms (Flowering plants), higher Classification of dicotyledons. According to BLANCHE & MOLERO (1987) and TREMBLIN (2000) *Halopeplis amplexicaulis* is an annual halophytic species that is widespread in salty habitats throughout the countries of the Mediterranean.

In Jordan it was reported and according to AL-EISAWI (1996, 1998) that *Halopeplis amplexicaulis* was found in dry land vegetation in Azraq wetland which forms the majority of the total area of the reserve (Al-Azraq Oasis reserve in the Eastern Desert) which was dominated mostly by dome like silt dunes and occupied rarely by this species. The steppe or plateau of Jordan developed at the eastern foot of the highlands. Maximum elevations around the edge of the plateau range from 1,000 m in the south to 700 m in the northeast; the lowest part of the plateau lies at an elevation of 500 m in Azraq Oasis. According to AL-QURA'N (2012) this species was dominant in Wadi Araba, Wadi Rum, Eastern Desert, Shaumari and Al-Azraq Oasis, in the desert (saharo-arabian) around the Dead Sea region, and Abar al Hazim (ABU BAKER et al, 2005). It seems that this species might be considered as invader one in such chorotype area, in that it is distributed in the Mediterranean Woodlands and Shrub lands, Deserts and extreme deserts. They can germinate, grow and reproduce successfully in saline areas which would cause the death of regular plants. This species is located on the salt banks of inland salt lakes in front of other plant communities. It is a pioneer species that colonizes bare salt plains and improves the physicochemical characteristics of the soil, thus preparing the environment for colonization by other perennial halophytes. As the study area considered a dry habit, and on account of its special edaphic and

water requirements, it is rare to be found in such habit. This implies the fact of decline pattern in term of its density from the intermediate habit to this pure habit.

The study area is located within the areas adjacent to Al-Hashemyia Municipality (56863208'N, 13143608'E; ca. 603-620 m a.s.l.), Zarqa, in the northern highlands of Jordan (in the Middle Jordan Valley Wetland zones which comprise of Zarqa River and King Talal Dam, Kherbit As-Samra). It is extended from Al-Kherbit Asl-Samra wastewater treatment plant to the north east of Al-Hashemeyia Municipality. Zarqa Governorate lies in the junction of Mediterranean and Irano-Turanian biogeographical regions with semi-arid Mediterranean bio-climate.

Regarding the native vegetation, the study area was dominated by grasses which are herbaceous, rarely woody plants, slightly woody, perennial, or annual. Those plants are generally erect or spread, and some are arising from stolons, tubers, bulbs, rhizomes or seeds. The area was mainly covered by some steppe vegetation especially *Retama raetam; Artemisia herba-alba; and Hammada spp*. For the Mediterranean vegetation, *Capparis spinosa* and *Sacropoterium spinosum* were the expected dominant vegetation type. According to reports of the Ministry of Agriculture, the noteworthy flora indicates the lack of information and scientific researches about that field.

This species was collected from calcareous and sedimentary soil, and according to USDA subgroup and particle size, the study area was dominated with proportions of *Xerochreptic camborthids, Calcixerollic xerochrepts*, and *Lithic xerothent*s. The study area lies at 3210'N, 3610'E; in the northern highlands, with an altitude of 450-500 m a.s.l., about 35 km northeast of Amman, Zarqa Governorate extended from Kherbat As-samra wastewater treatment plant in the East of Al-Hashemyeh Municipality to the West alongside the treated wastewater channel to transport the treated wastewater from Kherbat As-samra, through As-Sukhneh Municipality in the northwest reaching King Talal Dam**.**

The population consisted of about 20 individuals. Individuals of this species were up to 28 cm tall. Agricultural activities in Jordanian highland plateau areas, especially in Al-Hashemyeh Municipality – Zarqa governorate strip, resulting in the general replacement of cropland and pastures with new vegetative cover types, leading to the loss of habitat. Because the species is adapted to extreme halophytic micro-habitats, any changes in those habitats could result in extinction. A picture of the species from its habitat is given in Fig. 1.

Fig. 1. *Halopeplis amplexicauis* in the study area.

According to the results obtained and the literature review, our data fits with the fact that this species was not natively grown in the study area. Interesting fact was the finding of *Halopeplis amplexicaulis* in the study area.

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References

AL-EISAWI D. M. 1996. *Vegetation of Jordan.* Published by UNESCO (ROSTAS). Cairo. 284 p.

AL-EISAWI D. M. 1998. *Field Guide to Wild Flowers of Jordan and Neighbouring Countries.* Jordan Press Foundation "Al Rai". Amman. 296 p.

AL-QURA'N S. 2012. Halophytic vegetation with their conservation in Jordan. - *International Journal of Biodiversity and Conservation*, 4(1): 32-35.

BLANCHE C., J. MOLERO. 1987. The genus *Halopeplis* in the Iberian Peninsula. – *Collect. Bot. (Barcelona)*, 17: 67-77.

ABU BAKER M., P. ŠIROKÝ, Z. AMR, D. MORDRÝ. 2005. Discovery of a population of *Phrynocephalus maculatus* Anderson, 1872 in the Hashemite Kingdom of Jordan. – *HERPETOZOA*, 18(3/4).

TREMBLIN G. 2000. Science et changements planetaires. – *Secheresse*, 11: 109-116.

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