CATRINA (2015), 11 (1): 27 -28
© 2015 BY THE EGYPTIAN SOCIETY FOR ENVIRONMENTAL SCIENCES

Two New Records of Plant Species to Egyptian Flora

Abdelraouf A. Moustafa, Mohamed S. Zaghloul, and Dina H. AlSharkawy
Botany Department, Faculty of Science, Suez Canal University, Ismailia, Egypt

ABSTRACT

The present study aimed to focus on two new records of plant species growing in North Sinai (*Cyperus glaber* L. and *Eminium spiculatum* (Blume) Schott subsp. negevensis Koach & Feinbrun). These two species were found at the Mediterranean costal region at Bir elabid and El Mazar, growing in the inland area at Lehfen, Sad elrawafa and wadi El arish

Key Words: Egypt, North Sinai, Mediterranean coast, Cyperaceae, Araceae

INTRODUCTION

The Sinai Peninsula, which occupies an area of 61,000 km^2 or 6.1% of the surface area of Egypt, is very rich both in the number of species and the high percentage of endemics. More than one thousand and two hundred taxa of vascular plants were listed from Sinai, or 56.2% of the flora of Egypt (Boulos, 2008). The plant life in North Sinai is characterized by lots of medicinal plants and subjected to many threats affecting the occurrence and distributions of these plants, also the species composition in this area donated with rare and endemic species, in the meantime the Bedouin life depended mainly on the folk medicine using theses medicinal plant (Moustafa and Zaghloul, 2015). North Sinai harbours about one-hundred and twenty-one medicinal species (43% of the total recorded flora) growing mainly in Mediterranean coastal district (84 species) and anticlines district (72 species). Inland district supports about 35 medicinal species. The recorded medicinal plants belong to 96 genera and 37 families. The most represented families are Compositae and Leguminosae (13 species), Chenopodiacea (11 species), Cruciferae, Caryophyllaceae, and Graminae (8 species), and Labiatae and Zygophyllaceae (7 species) (Abdelwahab *et al*., 2008, Kamel *et al*., 2008).

Our main objective is to focus on the two new records of plant species; (*Cyperus glaber*) L., and (*Eminium spiculatum* (Blume) Schott subsp. negevensis Koach & Feinbrun).

MATERIALS AND METHODS

Study area

The North Sinai lies at the north eastern corner of Egypt between 32^o 20'- 34^o 30' E and 30^o 05'- 31^o 10' N. It is located along the Mediterranean Sea starting from Balloza village at the west to Rafah at the east. The eastern border is the eastern international political borders of Gaza strip and Israel starting with Rafah at the north to Taba at the south. The western border extends from Balloza village at the north to Ras Masala at the south. Its area is 27564 km2 (≈ 2.8% of total Egyptian land; North Sinai Governorate, 2004).

Collecting samples

Three-hundred plots distributed in one-hundred sites were sampled throughout North Sinai. The number of sites selected in each area depended largely upon the variation in the physiognomy, habitat feature, prevailing environmental factors, and nature of soil surface. In each plot, a species list was recorded. Identification and nomenclature of the collected specimens were carried out according to Täckholm (1974), Zohary (1972), Feinbrun-Dothan (1978 & 1986), and Boulos (1999, 2000, 2002 & 2005).

RESULTS

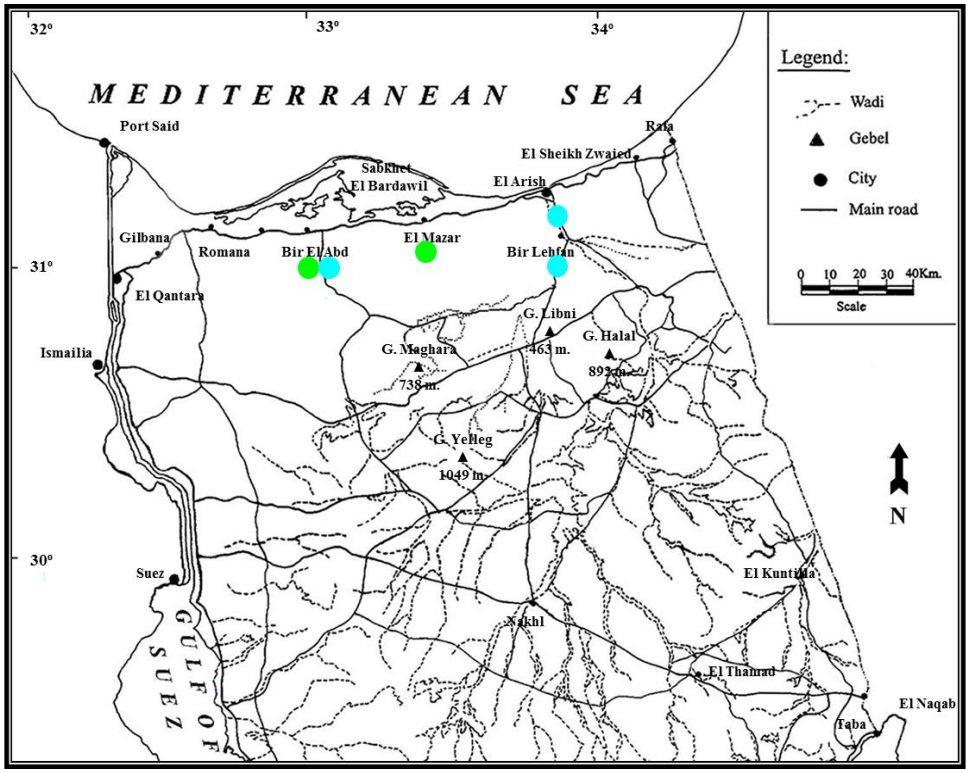
There are two new record plant species to Egypt; (*Cyperus glaber*) L., and another subspecies (*Eminium spiculatum* subsp. *negevensis*) is a new record to Egypt. *Cyperus glaber*, belongs to family Cyperaceae, it is an aannual, forms small tufts its leaves basal or subbasal, equalling or longer than stem, flowers with a short stipe, minutely papillose, black-brown or greyish black. It used to be found in Cental and South East Europe (Italy) east to Caucasus, Kazakhstan (Alatau Mts.) and Tadjikistan, and from Turkey, Syria, Lebanon, and Israel to Pakistan. In Egypt there are twenty-one recorded species, not including *C. glaber* which was found at the Mediterranean costal region at Bir elabid and in the inland area at Lehfen, Sad elrawafa and wadi El arish (Figure 1). *Eminium spiculatum* which belongs to family Araceae is a stout cormous perennial herb with pedately dissected leaves, appearing together with the flowers. It is considered by Bedouins as a dangerous poisonous plant due to its high calcium oxalate content. If it is eaten raw, this toxin gives a sensation as if hundreds of tiny needles are sticking into the mouth. However, it is easily destroyed by thoroughly cooking or drying the plant. It has medicinal properties as its juice is hypotensive and the alcoholic extract is hypertensive. It is distributed in Palestine, Lebanon, Syria, Turkey, Iraq, Iran, and Mediterranean coast and the Isthmic Desert of Egypt. There was no recorded sub species of this species in Egypt, we had found in the Mediterranean coastal region in Bir elabid and El Mazar (Figure 1).

DISCUSSION

A good understanding of natural regeneration in any plant community requires information on the presence and absence of re-growth after disturbances. Here we had found the two new record plant species which were not included in the Egyptian flora before. As for *Cyperus glaber* L. it was not found in both Täckholm (1974) and Bolous (2005) which proves that it is a new record to Egypt.

Eminium spiculatum (Blume) Schott subsp. negevensis Koach & Feinbrun) was not found in Tackholm (1974), but it was mentioned in Bolous (2005)

* *Corresponding author:* raoufmoustafa2@hotmail.com



Cyperus glaber

Eminium spiculatum

Figure (1): Distribution map of the two new recorders.

as a synonym for the species, and was noted that this subspecies was enumerated by Feinbrun –Dothan flora Palestina (1986), but he didn't mention that it is found in Egypt, which means that this subspecies is a new record to Egypt. Hereby we enumerate those two species as part of the flora of Egypt.

REFRENCES

ABD EL-WAHAB, R.H., ZAGHLOUL, M.S, KAMEL, W.M., MOUSTAFA, A.A. 2008. Diversity and Distribution of Medicinal Plants in North Sinai, Egypt. African Journal of Environmental Science and Technology **2** (7): 157-171

BOULOS, L. 1999. Flora of Egypt. Vol. I (Azollaceae-Oxalidaceae). Alhadara Publishing, Cairo, Egypt.

BOULOS, L. 2000. Flora of Egypt. Vol. Ii (Geraniaceae-Boraginaceae). Al-Hadara Publishing, Cairo, Egypt.

BOULOS, L. 2002. Flora of Egypt. Vol. Iii (Verbenaceae- Compositae). Al-Hadara Publishing, Cairo, Egypt.

BOULOS, L. 2005. Flora of Egypt. Vol. Iv (Alismataceae- Orchidaceae). Al-Hadara Publishing, Cairo, Egypt.

BOULOS, L. 2008. Flora and Vegetation of The Deserts Of Egypt. Fl. Medit. **18**: 341-359.

FEINBRUN-DOTHAN, N. 1978. Flora Palaestina. Volume 3 (Ericaceae-Compositae). Jerusalem, Israel: Te Israel Academy of Sciences and Humanities.

FEINBRUN-DOTHAN, N. 1986. Flora Palaestina. Volume 4 (Alismataceae-Orchidaceae). Jerusalem, Israel: Te Israel Academy of Sciences and Humanities.

KAMEL, W.M., ZAGHLOUL, M.S., ABDEL-WAHAB, R.H., MOUSTAFA, A.A. 2008. Current Status of The Flora of North Sinai: Losses And Gains. The Intern. J. Of Environ. Sci. Catrina **3** (1): 11-26

MOUSTAFA A.A., ZAGHLOUL, M. S.2015.Plant Life and Human Impact in North Sinai, Egypt, Lambert Academic Publishing. 128

TÄCKHOLM, V. 1974. Students' Flora of Egypt. Published by Cairo University, Printed by Cooper Native Printing Co., Beirut. 888.

ZOHARY, M. 1972. Flora Palaestina. Vol. 2 (Platanaceae-Umbelliferae). Jerusalem, Israel: Te Israel Academy of Sciences and Humanities.