

**FIRST RECORD OF GENUS *BREVINYCHUS* MEYER FROM EGYPT WITH DESCRIPTION OF A NEW SPECIES (ACARI: TETRANYCHIDAE)**

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**Abstract**

*Brevinychus aegyptiacus* n. sp. is the first record of *Brevinychus* Meyer in Egypt. The new species, *B. aegyptiacus* is the third member of the genus in the world. A description of female and male of the new species and illustrations is given. A key is formulated to accommodate the new species along with both previously known representatives, *B. mbandu* Meyer and *B. parvulus* Meyer.

**Key words:** *Brevinychus aegyptiacus* n.sp. (Acari: Tetranychidae), taxonomy.

**INTRODUCTION**

Genus *Brevinychus* Meyer was erected by Meyer (1974) to accommodate her new species, *B. mbandu* Meyer and *B. parvulus* Meyer. Meyer (1974 and 1987) stated that genus *Brevinychus* is distinctive in that the empodial claw is without proximoventral hairs, empodial claw very short, about the same length as pads of true claws, duplex setae distal and approximate, prodorsum with 3 pairs of setae and opisthosoma with 10 pairs of setae, most dorsal setae borne on tubercles, there may be a large variations in the length of the dorsal setae, some dorsocentral setae may be much shorter than other dorsal setae, dorsal integument punctulate, ventrally, 2 pairs of anals ( $ps_1$  &  $ps_2$ ) and 2 pairs of para-anals ( $h_2$  &  $h_3$ ) present.

The new species, *B. aegyptiacus* is collected on wheat, *Triticum aestivum* L. from El-Khatara region, Sharkeia Governorate, Egypt. The terminology used by Meyer (1974) is used to describe the new species.

**Key to the world species of *Brevinychus* Meyer**

**(Females)**

- (1) Fourth pair of dorsocentral setae ( $f_4$ ) shorter than the intervals between them, prodorsum with or without reticulate pattern medially.....2
- \* Fourth pair of dorsocentral setae ( $f_4$ ) longer than the intervals between them, prodorsum with heavy punctate pattern medially..... *B. aegyptiacus* n.sp.

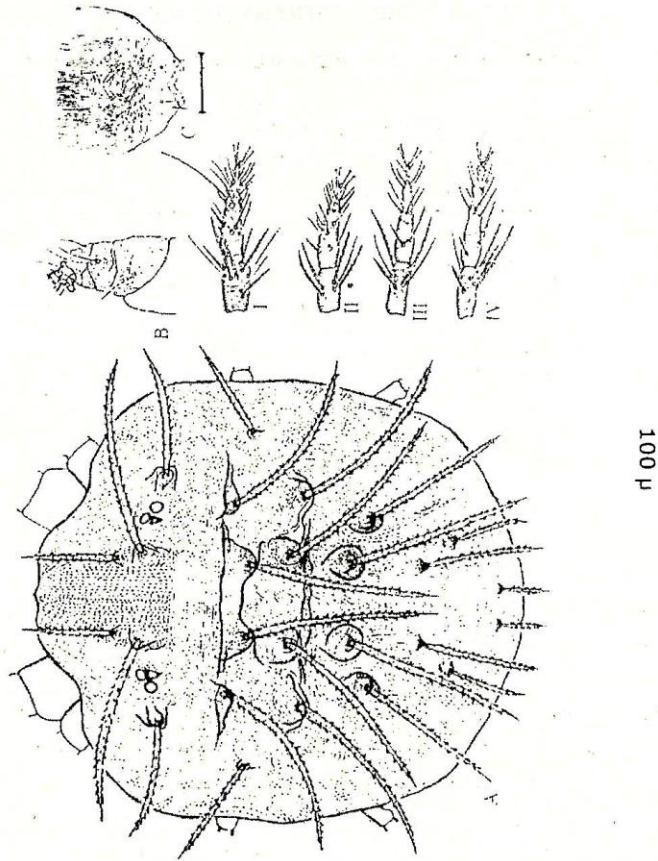


Fig (1) : *Brevinychus aegyptiacus* n.sp., Adult female. A dorsum; B. palp, C. venter and D legs (I -IV), respectively.

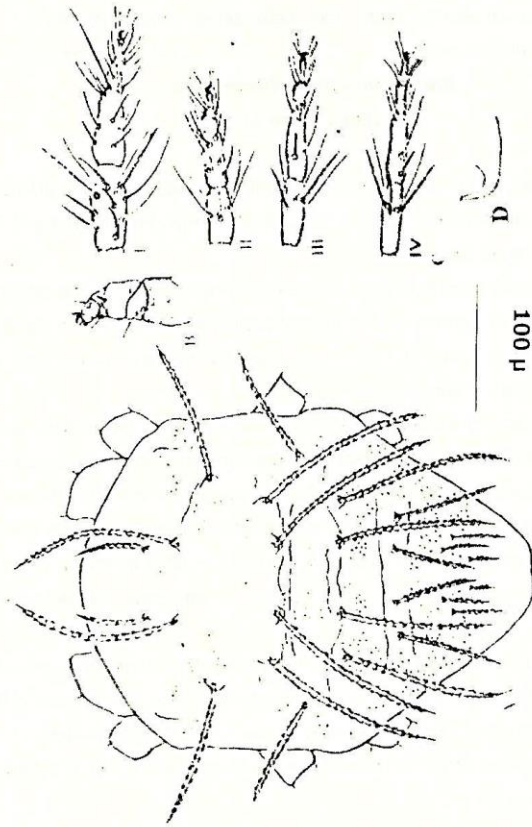


Fig (2) : *Brevinychus aegyptiacus* n.sp., Adult male. A dorsum; B. palp, C. legs (I-IV), respectively and D. aedeagus.

- (2) Opisthosoma with third ( $e_1$ ) and fourth ( $f_1$ ) pairs of dorsocentral setae much shorter than other body setae, prodorsum with distinct reticulate pattern medially .....*B. mbandu* Meyer.
- \* Opisthosoma with first to fourth pairs of dorsocentral setae ( $c_1$ ,  $d_1$ ,  $e_1$  and  $f_1$ ) much shorter than other body setae, prodorsum without reticulate pattern medially .....*B. parvulus* Meyer

***Brevinychus aegyptiacus* n. sp.**

(Figs. 1 and 2)

**Female** (Fig. 1):

Body circular, red in colour when alive, 550 $\mu$  in length including gnathosoma, 428  $\mu$  excluding gnathosoma, breadth 378  $\mu$ , length of legs: leg I, 378  $\mu$ , leg II, 265  $\mu$ , leg III, 214  $\mu$  and leg IV, 315  $\mu$ .

Dorsum with 13 pairs of filliform serrate setae originating on strong tubercles, of them 3 pairs of propodosomals and 10 pairs of hysterosomals which vary considerably in length. The distance apart of the fourth pair of dorsocentrals is about the same as that of the other three pairs of dorsocentrals.

The propodosomal shield area is covered with punctulate reticulations while the rest of the body bears punctulate striae, which are transverse behind the propodosomal shield before the anterior of hysterosoma and mostly irregular on rest of the body.

Gnathosoma: The stylophore is incised anteriorly, the peritreme ends in a simple bulb, the terminal sensillum of the palptarsus is about 2  $\frac{1}{2}$  times as long as broad.

Ventrum: Two pairs of anals and 2 pairs of para-anals, simple setae, are present.

Legs: The dorsal leg setae are simple lanceolate, the empodium is uncinat and tiny, the true claws are short pads, each bearing tenent hairs. The formula of the leg setae and solenidia (in parentheses) are: coxae (2-2-1-1), trochanters (1-1-1-1), femora (8-6-3-1), genua (5-5-3-3), tibiae [8 (1) -5-5-5] and tarsi 13 (1) + 2 duplex - 11 (1) + 2 duplex -10 (1)- 9 (1).

**Male** (Fig. 2):

Body circular, red in colour when alive, length 391  $\mu$  including gnathosoma, 315  $\mu$ . excluding gnathosoma, breadth 336  $\mu$ , length of legs: leg I, 344  $\mu$ , leg II, 277  $\mu$ , leg III, 387  $\mu$  and leg IV, 279  $\mu$ .

Dorsum with 13 pairs of setae, filliform and serrate, relatively shorter and thinner than those of female. The prodorsal shield area is covered with punctation while the rest of the body is punctulate as figured. The terminal sensillum on the palp-tarsus subequals the length of the spindle-shape dorsal sensillum.

The shaft of the aedeagus is relatively short, curves strongly dorsad and tapers to an acute tip.

Legs: The dorsal leg setae are simple lanceolate, the empodium is uncinata and tiny, the true claws are short pads, each bearing tenent hairs. The number of setae and solenidia (in parentheses) on each of the podomeres are as follows: coxae (0-0-0-1), trochanters (1-1-1-1), femora (8-7-3-1), genua (5-5-3-3), tibiae (7 (4) - 5-5-5) and tarsi 12 (3)+ 2 duplex - 11 (1) + 1 duplex-9(1)-9(1).

Holotype : Female collected on wheat, El-Khatara locality, El Sharkeia, Governorate, Egypt.

Paratypes : Several females with the same data of holotype.

Allotype : Male with the same data of both holotype and paratypes.

### DIAGNOSIS

The new species, *Brevinychus aegyptiacus* differs than *B. mbandu* Meyer and *B. parvulus* Meyer in that the four pairs of dorsocentral setae ( $c_1$ ,  $d_1$ ,  $e_1$  &  $f_1$ ) much longer. The shape of the body is circular in the new species but ovate in both Meyer's species.

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تسجيل جنس *Brevinychus* Meyer في مصر مع وصف نوع جديد  
(الأكاروسات: فصيلة العنكبوت الاحمر العادى)

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تسجيل جنس *Brevinychus* Meyer للمرة الأولى بمصر وذلك بوصف النوع الجديد *B. aegyptiacus* الذى يصيب نباتات القمح فى الاراضى حديثة الاستصلاح بمنطقة الخطارة بمحافظة الشرقية الذى تم رسمه ووصفه مورفولوجيا ووضعته فى مفتاح تصنيفى مع النوعين السابق وصفهما.