

# The Efficiency of the Parasitoids *Bracon hebetor* and *B. brevicornis* in the Control of Date Palm Moth *Cadra cautella* (Lepidoptera: Pyralidae)

## Authors

- **Raja M. Khalaf** Department of Plant Protection, College of Agriculture, University of Basrah
- **Ayad A. Abdulkader** Department of Plant Protection, College of Agriculture, University of Basrah

## DOI:

<https://doi.org/10.37077/25200860.2019.282>

## Keywords:

*Cadra cautella*, *Bracon hebetor*, *Bracon brevicornis*

## ABSTRACT

---

Adams, J.M. (1976). A guide to the objective and reliable estimation of food losses in small scale farmer storage. *Tropical stored Products Information*, 32: 5-12.

Abdulrahman, S.H.; Khawaja, G.R.; Abdullah, A.S.; Mureed, K.D. & Mahammad, T. (2013). Effects of temperature on the development of *Ephestia cautella* (Walker) (Pyralidae: Lepidoptera) a case study for its possible control under storage conditions. *Pakistan J. Zool.*, 45(6): 1573-1576.

Al-Abdullah, B.; Al-Hamada, J.; Celtie, M.N. & Aslan, L. (2001). The effect of host and temperatures on some biological processes efficiency of larval parasite *Bracon brevicornis* (Hymenoptera: Braconidae) under laboratory conditions. *Damascus Univ. J. Agric. Sci.*, 25(1): 345-365.

Al-Ramahi, R.S. & Ali, M.H. (1983). Effect of diets on the longevity of the adult parasitoid *Bracon hebetor* Say. *Yearbook Plant Pro. Res.*, 3(1): 29-38.

Al-Rawi, Kh.M. & Khalfalla, A.M. (1980). Design and analysis of agricultural experiments. Directorate of residence House Print. Publ., Univ. Mosul: 488pp. (In Arabic).

Al-Zadjali, T.S.; Abdallal, F.F. & El-Haidari, H.S. (2006). Insect pests attacking date palms and dates in Sultanate of Oman. *Egypt. J. Agric. Res.*, 84: 51-59.

Horak, M. (1994). A review of *Cadra walker* in Australia: five new native species and the two introduced pest species (Lepidoptera: Pyralidae: Phycitinae). *Aust. J. Entomol.*, 33(3): 245-262.

Gupta, A. & Lokhande, S.A. (2013). A new host record and a new combination in *Cotesia cameron* (Hymenoptera: Braconidae) from India. *J. Threatened Taxa*, 5(2): 3678-3681.

Mohsen, A.A. (2001). Control of *Ephestia cautella*: Lepidoptera: Pyralidae using parasitoid *Bracon hebetor* Say (Hymenoptera: Braconidae) gamma ray. M. Sc. Thesis, Coll. Educ. Women, Univ. Baghdad: 96pp. (In Arabic).

Saray, M.H. (2010). Effect of laser in some aspects of the life performance of the insect mite *Ephestia cautella*: Lepidoptera: Pyralidae. *Biotechnol. Res. Cent. Coll. Sci. Univ. Baghdad*, 4(2): 62-66.

Tarek, M.A.; Mohamed, H.A. & Al-Jalely, B.H. (2014). Bioprotective evaluation of *Beauveria bassiana* (Bals.) Vuill on the different stages of fig moth *Ephestia cautella*: (Lepidoptera: Pyralidae) *in vitro*. *J. Kerbala Univ.*, 12(1): 190-196. (In Arabic).

Sharma, H.C.; Ashok-Aluv, S.; Ravinder-Reddy, C.H.; Jayaraj, K.; Varaprasad, V.J.; Varaprasad-Reddy, K.M.; Belum, V.S. & Reddy-Rai, K.N. (2007). Management of sorghum and pearl millet pest in Bulk storage. Global theme on crop Improvement. International crops Research Institute for the Arid Tropics. Patan Cheru 502-324, Andhra Pradesh, India: 20pp.

Shawkit, M.A.; Hamad, B.S.; MasehKhder, N.A.; Hamed, A.A. & Al-Tweel, A.A. (2014). Searching capacity of *Habrobracon hebetor* Say (Hymenoptera: Braconidae) for its host larvae in simulated date store. *J. Madenat Alelem Univ. Coll.*, 6(1): 30-38.

## DOWNLOADS

## REFERENCES

---

- Adams, J.M. (1976). A guide to the objective and reliable estimation of food losses in small scale farmer storage. *Tropical stored Products Information*, 32: 5-12.
- Abdulrahman, S.H.; Khawaja, G.R.; Abdullah, A.S.; Mureed, K.D. & Mahammad, T. (2013). Effects of temperature on the development of *Ephestia cautella* (walker) (Pyralidae: Lepidoptera) a case study for its possible control under storage conditions. *Pakistan J. Zool.*, 45(6): 1573-1576.
- Al-Abdullah, B.; Al-Hamada, J.; Celtie, M.N. & Aslan, L. (2001). The effect of host and temperatures on some biological processes efficiency of larval parasite *Bracon brevicornis* (Hymenoptera: Braconidae) under laboratory conditions. *Damascus Univ. J. Agric. Sci.*, 25(1): 345-365.
- Al-Ramahi, R.S. & Ali, M.H. (1983). Effect of diets on the longevity of the adult parasitoid *Bracon hebetor* Say. *Yearbook Plant Pro. Res.*, 3(1): 29-38.
- Al-Rawi, Kh.M. & Khalfalla, A.M. (1980). Design and analysis of agricultural experiments. Directorate of residence House Print. Publ., Univ. Mosul: 488pp. (In Arabic).
- Al-Zadjali, T.S.; Abdallal, F.F. & El-Haidari, H.S. (2006). Insect pests attacking date palms and dates in Sultanate of Oman. *Egypt. J. Agric. Res.*, 84: 51-59.
- Horak, M. (1994). A review of *Cadra walker* in Australia: five new native species and the two introduced pest species (Lepidoptera: Pyralidae: Phycitinae). *Aust. J. Entomol.*, 33(3): 245-262.
- Gupta, A. & Lokhande, S.A. (2013). A new host record and a new combination in *Cotesia cameron* (Hymenoptera: Braconidae) from India. *J. Threatened Taxa*, 5(2): 3678-3681.
- Mohsen, A.A. (2001). Control of *Ephestia cautella*: Lepidoptera: Pyralidae using parasitoid *Bracon hebetor* Say (Hymenoptera: Braconidae) gamma ray. M. Sc. Thesis, Coll. Educ. Women, Univ. Baghdad: 96pp. (In Arabic).
- Saray, M.H. (2010). Effect of laser in some aspects of the life performance of the insect mite *Ephestia cautella*: Lepidoptera: Pyralidae. *Biotechnol. Res. Cent. Coll. Sci. Univ. Baghdad*, 4(2): 62-66.

Tarek, M.A.; Mohamed, H.A. & Al-Jalely, B.H. (2014). Bioprotective evaluation of *Beauveria bassiana* (Bals.) Vuill on the different stages of fig moth *Ephestia cautella*: (Lepidoptera: Pyralidae) in vitro. *J. Kerbala Univ.*, 12(1): 190-196. (In Arabic).

Sharma, H.C.; Ashok-Aluv, S.; Ravinder-Reddy, C.H.; Jayaraj, K.; Varaprasad, V.J.; Varaprasad-Reddy, K.M.; Belum, V.S. & Reddy-Rai, K.N. (2007). Management of sorghum and pearl millet pest in Bulk storage. Global theme on crop Improvement. International crops Research Institute for the Arid Tropics. Patan Cheru 502-324, Andhra Pradesh, India: 20pp.

Shawkit, M.A.; Hamad, B.S.; MasehKhder, N.A.; Hamed, A.A. & Al-Tweel, A.A. (2014). Searching capacity of *Habrobracon hebetor* Say (Hymenoptera: Braconidae) for its host larvae in simulated date store. *J. Madenat Alelem Univ. Coll.*, 6(1): 30-38.

- [PDF](#)

PUBLISHED  
2019-12-22

HOW TO CITE

M. Khalaf , R., & A. Abdulkader, A. (2019). The Efficiency of the Parasitoids *Bracon hebetor* and *B. brevicornis* in the Control of Date Palm Moth *Cadra cautella* (Lepidoptera: Pyralidae). *Basrah J. Agric. Sci.*, 32, 352-359. <https://doi.org/10.37077/25200860.2019.282>  
More Citation Formats

ISSUE

[Vol. 32: Spec. Issue 2 \(2019\)](#)

SECTION

---

Articles

Copyright (c) 2019 Raja M. Khalaf & Ayad A. Abdulkader



This work is licensed under a [Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License](#).

**Most read articles by the same author(s)**

- Raja M. Khalaf , Ayad A. Abdulkader, [The Efficiency of the Parasitoids Bracon hebetor and B. brevicornis in the Control of Date Palm Moth Cadra cautella \(Lepidoptera: Pyralidae\) , Basrah J. Agric. Sci.: Vol. 32: Spec. Issue 2 \(2019\)](#)

# INDEXED



UNIVERSITY OF  
SASKATCHEWAN

**GSI**



[And Other Index >>>>](#)



Basrah Journal of Agricultural Sciences (BJAS); article processing charge (APC).  
© 2020, University of Basrah / College of Agriculture, Basrah , Iraq.

## INFORMATION

- [For Readers](#)
- [For Authors](#)
- [For Librarians](#)

## LANGUAGE

- [English](#)
- [العربية](#)

---

BJAS Journal is an OAJ supported by Basrah University, College of Agriculture it has article submission/processing charges (APCs).

© 1985 -2020, Basrah University is accredited by the Ministry of Higher Education and Scientific Research, Iraq.