

DAFTAR PUSTAKA

- Ahmad, S., Ashfaq, M., Hassan, M dan Sahi, S.T. 2012. Potential of Parasitoid *Trichogramma Chilonis* (Ishii) (Hymenoptera: Trichogrammatidae) Against The Sugarcane Stem Borer, *Chilo Infuscatellus* (Lepidoptera: Pyralidae) Under Field Condition. *Int. Journal Biodiversity and Conservation*, 4(1): 36-38.
- Alba MC. 1988. Trichogrammatids in the Philipines. *Journal Phillipina Entomology*. 7(3): 253-271
- Altieri MA, Nicholls CI. 2004. *Biodiversity and Pest Management in Agroecosystem*. Second Edition. New York (USA): Food Product Press.
- Ardjanhar, A., A. Muis and N. Nonci. 2010. Maize Pest Status and Their Natural Enemies in Maize Production Area of Donggala, Central Sulawesi, Indonesia. Proceeding of the Tenth Asian Regional Maize Workshop.
- Baggen, L. R., & Gurr, G. M. (1998). The Influence of Food on *Copidosoma koehleri* (Hymenoptera: Encyrtidae), and the use of flowering plants as a habitat management tool to enhance biological control of potato moth, *Phthorimaea operculella* (Lepidoptera: Gelechiidae). *Biological Control*, 11(1): 9-17.
- Buchori, D., P. Hidayat, K. Utomo, Alinormansyah, dan A. Meilin. 2002. Dinamika Interaksi Antara Parasitoid Trichogrammatidae dan Inangnya : Faktor-Faktor Yang Berpengaruh Terhadap Kualitas Trichogrammatidae Sebagai Agen Pengendalian Hayati. Laporan Penelitian Hibah Bersaing Perguruan Tinggi Vii/3.
- Buchori, D., A. Meilin., P. Hidayat dan B. Sahari. 2010. Species Distribution of Trichogramma and Trichogrammatoidea Genus (Trichogrammatoidea: Hymenoptera) In Java. *J. Issaas*, 16(1): 83-96.
- Camarao, G.C. 1976. Population dynamics of the cornborer, *Ostrinia furnacalis* (Guene'e), I. Life cycle, behavior, and generation cycles. *Philippine Entomologist* 3:179-200.
- Daha, L., N. Amin dan T. Abdullah. 2016. The Study on the Roles of Predators on Asian Corn Stem Borer, *Ostrinia furnacalis* Guenee (Lepidoptera: Pyralidae). *OnLine Journal of Biological Sciences*, 16 (1): 49-55.
- Laba, I.W. 1998. Prospek Parasitoid Telur sebagai Pengendali Alami Penggerek Batang Padi. *Jurnal Litbang Pertanian XVII* (I).
- Granados G. 2000. *Maize Insects: Tropical Maize, Improvement and Production*. Rome: Food and Agriculture Organization of the United Nations.
- Geetha, N. 2011. Fate of the Released Trichocards in Sugarcane vis-à-vis Ant Predation. *Journal of Biological Control*. 25(4): 270-279.
- Godfray HCJ. 1994. Parasitoids: behavioral and evolutionary ecology. Princeton University Press. Princeton New Jersey, USA.



- Guo, L & G. Q. Li. 2009. Olfactory perception of oviposition-detering fatty acids and their methyl esters by the Asian corn borer, *Ostrinia furnacalis*. *Journal of Insect Science* 9:1–9.
- Granados G. 2000. Maize Insects. Tropical Maize. Improvement and Production. Roma (IT): Food and Agriculture Organization.
- Hamid H, Buchori D, Triwidodo H. 2003. Keanekaragaman parasitoid dan parasitisasinya pada pertanaman padi di kawasan Taman Nasional Gunung Halimun. *Hayati*. 10(3): 85-90. 103-112. DOI: 10.05994/jei.11.2.96.
- Harrison, R. D., C. Thierfelder., F. Baudron., P. Chinwada., C. Midega., U. Schaffner., J. V. D. Berg. 2019. Agro-ecological options for fall armyworm (*Spodoptera frugiperda* JE Smith) management: Providing low-cost, smallholder friendly solutions to an invasive pest. *Journal of Environmental Management* 243: 318–330.
- Hasbi, A. M., R. Raffiudin dan I. M. Samudra. 2016. Biologi Penggerek Batang *Ostrinia furnacalis* Gueneé yang diberi Pakan Buatan. *Jurnal Sumberdaya HAYATI*. 2(1): 13-18.
- Hasse, V. and J.A. Litsinger. 1980. Studies on environmental factors responsible for the reduction of the Asian Corn Borer *Ostrinia furnacalis* Guenee, in intercropped corn fields. Paper presented at the 11th National Conference of The Philippines 23-26 April 1980. Cebu City.
- Heryana, R. T. S. 2013. Penggerek batang jagung *Ostrinia furnacalis* Guenée (Lepidoptera: Crambidae): tingkat serangan di wilayah Bogor dan siklus hidupnya di laboratorium [Skripsi]. Bogor (ID): Institut Pertanian Bogor.
- Hidayani, Yaherwandi & Sari, W. 2007. Keragaman Spesies Parasitoid Telur pada Tanaman Padi, Jagung, dan Tomat di Kabupaten Tanah Datar. Manggaro. *Jurnal Pengelolaan Hama Dan Penyakit Tumbuhan*. 8(1):17-24.
- Hoballah, M. E., Degen, T., Bergvinson, D., Savidan, A., Tamo, C., & Turlings, T. C. J. 2004. Occurrence and direct control potential of parasitoids and predators of the fall armyworm (Lepidoptera: Noctuidae) on maize in the subtropical lowlands of Mexico. *Agricultural and Forest Entomology*. 6(1): 83–88.
- Jervis M.A., Kidd N.A.C., Fitton M.G., Hudleston T., Daweh A. 1993. Flower Visiting By Hymenopteran Parasitoids. *Journal*. 27: 67-105.
- Kalshoven LGE. 1981. The Pests of Crops in Indonesia. PA van der Laan, penerjemah. Jakarta: PT. Ichtar Baru-Van Hoeve.
- King, B.H. 2002. Offspring sex ratio and number in response to proportion of host size and ages in the parasitoid wasp *Spalangia cameroni*. *Environ Entomol* 31(3): 505-508.
- Koch, R.L., E.C. Burkness, & W.D. Hutchison. 2006. Spatial Distribution and Fixed-Precision Sampling Plans for Ladybird *Harmonia axyridis* in Sweet Corn. *BioControl* 51: 741–751



- Lafferty KD. 2012. Biodiversity loss decreases parasite diversity: theory and patterns. *Phil. Trans. Proceedings of Royal Society B.* 367: 2814–2827.
- Landis, D. A., S T. Wratten and G. M. Gurr. 2000. Habitat Management to Conserve Natural Enemies of Arthropod Pests in Agriculture. *Annu. Rev. Entomol.* 45: 175-201.
- Lihawa, M., Witjaksono, N. S. Putra. 2010. Survei Penggerek Batang Jagung dan Kompleks Musuh Alaminya di Provinsi Gorontalo. *Jurnal Perlindungan Tanaman Indonesia*, 16(2): 82-87.
- Lihawa, M. 2014. Kontribusi Faktor Abiotik dan Biotik yang Mengatur Populasi Penggerek Batang Jagung di Kabupaten Gorontalo dan Pohuwato Provinsi Gorontalo. [Disertasi]. Universitas Gadjah Mada, Yogyakarta.
- Litsinger, J. A., C. G. Dela Cruz, B. L. Canapi & A. T. Barrion. 2007. Maize planting time and arthropod abundance in Southern Mindanao, Philippines. II. Population dynamics of natural enemies, *International Journal of Pest Management.* 53(2): 161-173.
- Liu, S. S., G. M. Zhang & F. Zhang. 1998. Factors Influencing Parasitism of *Trichogramma dendrolili* on Eggs of the Asian Corn Borer, *Ostrinia furnacalis*. *BioControl.* 43 : 273-287.
- Lopez, Y. D., Y. A. Trisyono., Witjaksono dan Subiadi. 2014. Pola Sebaran Kelompok Telur *Ostrinia furnacalis* Guenée (Lepidoptera: Crambidae). *Jurnal Entomologi Indonesia* 11(2): 81-92.
- Lou, Y & J. Cheng. 2001. Host-recognition kairomone from *Sogatella furcifera* for the parasitoid *Anagrus nilaparvatae*. *Entomol. Exp. Appl.* 101:59-67.
- Meilin A. 1999. Keragaman karakter morfologi dan genetik populasi parasitoid telur *Trichogramma* spp. dan *Trichogrammatoidea* spp. (Hymenoptera: Trichogrammatidae) dari daerah geografis yang berbeda di pulau Jawa [tesis]. Bogor: Program Pasca Sarjana Institut Pertanian Bogor.
- Menalled FD, Marino PC, Gage SH dan Landis DA. 1999. Does agricultural landscape structure affect parasitism and parasitoid diversity. *Ecology Application* 9(2):634-641.
- Nagarkatti S, H. Nagaraja. 1977. Biosystematics of *Trichogramma* and *Trichogrammatoidea* Species. *Ann. Rev. Entomol.* 22: 157-176.
- Nonci N, Baco D. 1991. Pertumbuhan penggerek batang jagung (*Ostrinia furnacalis* Guenee.) pada berbagai tingkat umur tanaman jagung (*Zea mays* L.). *Agrikam.* 6(3): 95–101.
- Nonci, N., J. Tandiang, Masmawati, dan A. Muis. 2000. Inventarisasi Musuh Alami Penggerek Batang Jagung (*Ostrinia furnacalis*) di Sentra Produksi Sulawesi Selatan. *Penelitian Pertanian* 19: 38–49.



- Norris, K. R., C. Chen dan M. Kogan. 2003. *Concept in integrated pest management*. Ne Jesey: Prentice Hall.
- Nonci N. 2004. Biologi dan musuh alami penggerek batang *Ostrinia furnacalis* Guenée (Lepidoptera: Pyralidae) pada tanaman jagung. *Jurnal Litbang Pertanian* 23(1): 8-14.
- Nonci, N. 2005. Pemanfaatan parasitoid telur *Trichogramma evanescens* Westwood untuk pengendalian penggerek batang jagung *Ostrinia furnacalis*. Di dalam: Prosiding SEMINAR Nasional Jagung; 2005 September 29-30; Maros. Maros (ID): Balai Penelitian Tanaman Serelia.
- Nugraha, M.N, Buchori D, Nurmansyah A, Rizali A. 2014. Interaksi tropik antara hama dan parasitoid pada pertanaman sayuran: faktor pembentuk dan implikasinya terhadap keefektifan parasitoid. *J. Entomol Indones*. 11(2): 103-112.
- Nurindah 2002. Identifikasi parasitoid telur *Trichogramma* dan *Trichogrammatoidea*. Di dalam: *Diseminasi Penerapan Pemanfaatan Parasitoid T. bactrae-bactrae (Nagaraja) Sebagai Agens Hayati untuk Mengendalikan Hama Penggerek Pongkol Kedelai spp.*. Malang: Balai Proteksi Tanaman Pangan dan Hortikultura Wilayah VI.
- Nurindah dan O. S Bindra. 1989. Studies on *Trichogramma* spp. (Hymenoptera: Trichogrammatidae) in the control of *Heliothis armigera* (Hubner) (Lepidoptera: Noctuidae). h. 165-172. *Dalam Symposium on Biological Control of Pests in Tropical Agricultural Ecosystems*. Bogor, Indonesia, June 1-3, 1988. BIOTROP Spec. Publ. No.36. 349 h.
- Nurindah dan Sujak. 2006. Keanekaragaman Spesies Parasitoid Telur *Helicoverpa armigera* (Hübner) Pada Sistem Tanam Monokultur Dan Polikultur Kapas. Balai Penelitian Tanaman Tembakau Dan Serat. *Jurnal Entomol. Indonesia*. 3(2): 84-93.
- Pabbage, M. S., N. Nonci, dan D. Baco. 1999. Efektifitas *Trichogramma evanescens* pada berbagai umur telur penggerek batang jagung *O. furnacalis*. Laporan Tahunan Penelitian Hama dan Penyakit, Balitjas, Maros 2000.
- Pabbage, M. S dan Tandiabang, J. 2007. Parasitasi *Trichogramma Evanescens* Westwood (Hymenoptera: Trichogrammatidae) pada Berbagai Tingkat Populasi dan Generasi Biakan Parasitoid Terhadap Telur Penggerek Batang Jagung *Ostrinia Furnacalis* Guenee. *Jurnal Agritropika* 26(1): 41-50.
- Penagos, D. I., R. Maagallanes., J. Valle., J. Cisneros., A. M. Martinez., D. Goulsons., J. W. Chapman., P. Caballero., R. D. Cave and T. Williams. 2003. Effect of weeds on insect pests of maize and their natural enemies in Southern Mexico. *International Journal of Pest Management*. 49(2): 155–161.
- Pinto, J.D. 1995. Hand Out of *Trichogramma* Identification Workshop. Brisbane, Australia.



- Purnomo, H., Prastowo, S., dan Mabduh, S. 2008. Biologi Parasitoid Koinobiont *Opius* sp. (Hymenoptera: Braconidae) Pada larva Lalat Pengorok Daun *Liriomyza huidobrensis*. *Jurnal Pengendalian Hayati* 1: 32-39.
- Roderick GK. 1996. Geographic structure on insect population: gene flow, phylogeography, and their uses. *Ann. Rev. Entomol.* 41: 325-352.
- Shahabuddin, dan Flora P. 2009. Preferensi Penggerek Batang Padi Putih *Scirphopaga innotata* Walker (Lepidoptera : Pyralidae) pada Tiga Varietas Padi Gogo. Fakultas Pertanian Universitas Tadulako. *Jurnal Agroland* 18(2) : 92-96.
- Subiadi, Y. A. Trisyono., E. Martono. 2014. Aras Kerusakan Ekonomi (AKE) Larva *Ostrinia furnacalis* (Lepidoptera: Crambidae) Pada Tiga Fase Pertumbuhan Tanaman Jagung. *Jurnal Entomologi Indonesia.* 11(1): 19-26.
- Sulaiman, G., M.Y. Hussein, & A.B. Idris. 2004. The Abundance and Parasitism on the Egg Masses of the Asiatic Corn Borer *Ostrinia furnacalis* Guenee in Weedy and Weedy-Free Cornfields in Malaysia. *International Journal of Agriculture and Biology* 6: 36–38.
- Suprpti. 2011. Pedoman Pembinaan Penggunaan Pestisida. Indonesia (ID): Kementerian Pertanian
- Takasu, K., & Lewis, W. J. 1993. Host and Food Foraging of the Parasitoid *Microplitis croceipes*: Learning and Physiological State Effects. *Biological Control* 3(1):70–74.
- Thomson, L. J., Sarina M., & Ary A. Hoffmann, 2010. Predicting the Effects of Climate Change on Natural Enemies of Agricultural Pests. *Biology Control.* 52 : 296-306.
- Untung, K., 2006. Pengantar Pengelolaan Hama Terpadu. UGM Press, Yogyakarta.
- Ulpah, S. 2006. Behavioural Responses of *Trichogramma papilionis* Nagarkatti, Egg Parasitoid of Maize Borer, *Ostrinia furnacalis* (Guen.) to Semiochemicals From Maize Plant and Selected Weeds.
- Van Driesche RG, Bellows T. 1996. *Biological Control*. New York: Chapman & Hall
- Vaughn TT, Antolin MF. 1998. Population genetics of an opportunistic parasitoid in an agricultural landscape. *J Heredity.* 80: 152-162.
- Wagiman, F.X. 2006. *Pengendalian hayati hama kutu perisai kelapa dengan predator Chilocorus politus*. Gadjah Mada University Press.
- Wajnberg, Hassan S.A. *Biological control with egg parasitoid*. CAB International. 1994.
- Wang, X., Liu, S. Effect of host age on the performance of *Diadromus collaris*, a pupal parasitoid of *Plutella xylostella*. *Biocontrol* 47: 293-307. 2002.



- Wanger, T. C., Rauf, A & S. Schwarze. 2011. Pesticide and Tropical Biodiversity. *Frontiers in Ecology and the Environment* 8: 178- 179.
- Widyakarya Nasional Pangan dan Gizi XI [WNPNG]. 2018 Peningkatan Akses Pangan Beragam Untuk Percepatan Penurunan Stunting. Disampaikan oleh DR. IR. Andi Amran Sulaiman, MP (Menteri Pertanian) dalam Widyakarya Nasional Pangan dan Gizi XI Jakarta, 3 Juli 2018. <https://wnpg.lipi.go.id/wp-content/uploads/2018/07/pleno1/Mentan.pdf>
- Yaherwandi, Manuwoto S, Buchori D, Hidayat P, Prasetyo LB. 2008. Struktur komunitas Hymenoptera parasitoid pada tumbuhan liar di sekitar pertanaman padi di Daerah Aliran Sungai (DAS) Cianjur, Jawa Barat. *Jurnal HPT Trop.* 8(2): 90-101.
- Yunus M, Shahabuddin, Buchori D, Hidayat P. 2004. Kemampuan Memarasit dan Ciri-ciri kebugaran *Trichogramma japonicum* Ashmead dari Pertanaman Padi di Sulawesi Tengah. Di dalam: Arifin M *et al.*, editor. *Entomologi dalam Perubahan Lingkungan dan Sosial. Prosiding Seminar Nasional Perhimpunan Entomologi Indonesia (PEI)*; Bogor, 5 Oktober 2004. Bogor: PEI. hlm 385- 396.