

Figure S1. Number of stemborers of *Busseola fusca*, *Sesamia calamistis* and *Chilo partellus* found in maize residues and wild plants per 100 maize residues or wild plants sampled in two agro-ecological zones (Kitale & Mtito Andei and Kakamega & Muhaka) during non-cropping seasons in 2009 and 2009. Significant differences at 5% level between maize residues vs. wild plants are shown by different letters determined using Tukey’s multiple comparisons tests with the R package “lsmeans”, following generalized linear model (GLM) with negative binomial error distribution.

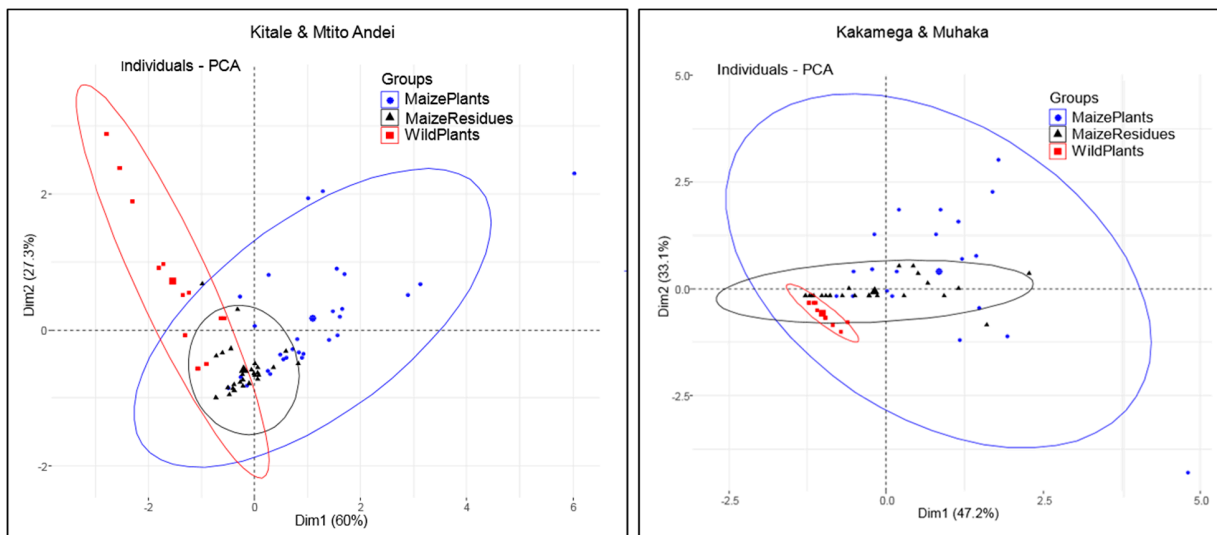


Figure S2. Principal component biplot showing the relation between abundance of stemborer species in maize plants of cultivated fields during cropping season and those in either maize residues or wild plant during non-cropping season in two agro-ecological zones of Kenya (Kitale & Mtito Andei and Kakamega & Muhaka) during non-cropping seasons.

Table S1. Stemborer species composition and total abundance in maize residues and wild plants during non-cropping seasons in different agro-ecological zones in Kenya (from Mailafiya [12]).

Habitats	Total Number	Stemborer Species Composition					
		Bf	Sc	Cp	Co	Bse	Os
Kitale & Mtito Andei							
Maize residues	1090	641	180	197	49	17	6 Es
Wild plants	146	6	4	2	7	86	41
<i>Sorghum arundinaceum</i> *	18	4	3	2	-	9	-
<i>Panicum maximum</i> *	29	2	-	-	-	26	1 Mn
<i>Panicum</i> sp. *	9	-	-	-	-	2	5 Ppi, 2 Mn
<i>Eleusine jaegen</i> *	34	-	-	-	2	30	2 Ppi
<i>Cynodon dactylon</i> *	17	-	1	-	4	-	7 Ssp, 5 Csp
<i>Cyperus</i> sp. †	2	-	-	-	-	-	2 Sv
<i>Echinochloa haploclada</i> *	20	-	-	-	1	7	12 Mni
<i>Rottboellia cochinchinensis</i> *	17	-	-	-	-	12	5 Esp
Kakamega & Muhaka							
Maize residues	453	126	141	138	27	15	6 Sp
Wild grasses	338	5	13	11	81	125	103
<i>Panicum maximum</i> *	107	-	6	2	76	6	17 Sp
<i>Panicum</i> sp. *	80	-	3	3	-	55	14 Csp, 5 Mn
<i>Cyperus</i> sp. †	33	-	-	-	-	9	24 Sno
<i>Sorghum arundinaceum</i> *	12	-	3	6	1	-	1 Ppi, 1 Es
<i>Pennisetum trachyphyllum</i> *	6	2	-	-	-	-	4 Sn
<i>Pennisetum purpureum</i> *	26	3	-	-	-	18	5 Ppi
<i>Cyperus dereilema</i> †	4	-	-	-	-	-	4 Ppi
<i>Cynodon</i> sp. *	3	-	-	-	-	-	2 Ppi, 1 Scs
<i>Scleria racemosa</i> †	39	-	-	-	-	35	1 Sv, 3 Mn
<i>Chloris gayana</i> *	5	-	-	-	-	-	5 Mn
<i>Setaria megaphylla</i> *	4	-	-	-	-	2	2 Bs
<i>Cynodon dactylon</i> *	19	-	1	-	4	-	8 Ssp, 6 Csp

Os = Other species. Noctuidae (Sn = *Sciomesa nyei*; Ppi = *Pirateolea piscator*; Sv = *Sciomesa venata*; Ssp = *Sciomesa* sp nov; Mn = *Manga nubifera*; Sp = *Sesamia poephaga*; Sno = *Sesamia nonagrioides*; Sc = *Sesamia calamistis*; Bse = *Busseola segeta*; Bs = *Busseola sensu*; Bf = *Busseola fusca*) / Crambidae (Co = *Chilo orichalcociliellus*; Cp = *Chilo partellus*; Csp = *Chilo* sp) / Pyralidae (Esp = *Ematheudes* sp.; Es = *Eldana saccharina*; Mni = *Mussidia nigriovenella*; Scs = *Schoenobius* sp). Wild grasses: * Poaceae, † Cyperaceae.

Table S2. Parasitoids composition and abundance from stemborers species in maize residues and wild plants during non-cropping seasons in different agro-ecological zones in Kenya (from Mailafiya [12]).

Parasitoid Species	Borer Species	Borer Stages	Wild Plants	Total Number	Kitale & Mito		Kakamega & Muhaka	
					Andei		Maize Residues	Wild Plants
					Maize Residues	Wild Plants		
Hymenoptera: Braconidae								
<i>Cotesia flavipes</i>	Cp, Sc	larva	Sa	22	-	-	17	5
<i>Cotesia sesamiae</i>	Bf, Sc	larva	Sa	13	9	4	-	-
<i>Dolichogenidea polaskezi</i>	Bf	larva	-	1	1	-	-	-
<i>Macrocentrus sp.</i>	Tr	larva	Cr	1	-	-	-	1
Hymenoptera: Ichneumonidae								
<i>Syzectus sp.</i>	Co, Cp,	pupa	Sa, Pm	5	-	2	-	3
<i>Amouramorpha sp.</i>	Tr	larva	Cr	1	-	1	-	-
Hymenoptera: Eulophidae								
<i>Pediobius furvus</i>	Cp, Sc	pupa	Sa	3	-	-	3	-
Diptera: Muscidae								
<i>Atherigona sp</i>	Cp	larva	Pm	2	-	-	-	2
Diptera: Chloropidae								
<i>Chloropid sp</i>	Bf	larva	Sm	2	-	2	-	-
Diptera: Tachinidae								
<i>Sturmiopsis parasitica</i>	Bf	larva	Sa	2	1	1	-	-
<i>Siphona (Meigen) sp.</i>	Bf, Mn	larva	Pm	2	2	-	-	-

Borer species: Bf = *Busseola fusca*, Sc = *Sesamia calamistis*, Cp = *Chilo partellus*, Co = *Chilo orichalcocillielus*, Tr = Tortricidae, Mn = *Manga nubifera*; Plant species: Sa = *Sorghum arundinaceum*, Pm = *Panicum maximum*, Cr = *Cyperus rotundus*, Sm = *Setaria megaphylla*. No. = Total number of parasitized larvae recorded for a given parasitoid species, - absent.

Table S3. Morista-Horn similarity index between maize fields vs. maize residues and between maize fields vs. wild plants in the carry-over of lepidopteran maize stemborer species.

Agro-Ecological Zones	Morista-Horn Index (C_{MH})	
	Maize Fields vs. Maize Residues	Maize Fields vs. Wild Plants
Kitale & Mtito Andei	0.95	0.04
Kakamega & Muhaka	0.99	0.14

The value close to 1 indicates a greater similarity between the two habitats and vis versa.

Table S4. Morista-Horn similarity index between maize fields vs. maize residues and between maize fields vs. wild plants in the carry-over of lepidopteran maize stemborers associated larval and pupal parasitoids species.

Agro-Ecological Zones	Morista-Horn Index (C_{MH})	
	Maize Fields vs. Maize Residues	Maize Fields vs. Wild Plants
Kitale & Mtito Andei	0.98	0.68
Kakamega & Muhaka	0.97	0.63

The value close to 1 indicates a greater similarity between the two habitats and vis versa.