## Supplementary Information

## Sexual communication of *Spodoptera frugiperda* from West Africa: Adaptation of an invasive species and implications for pest management

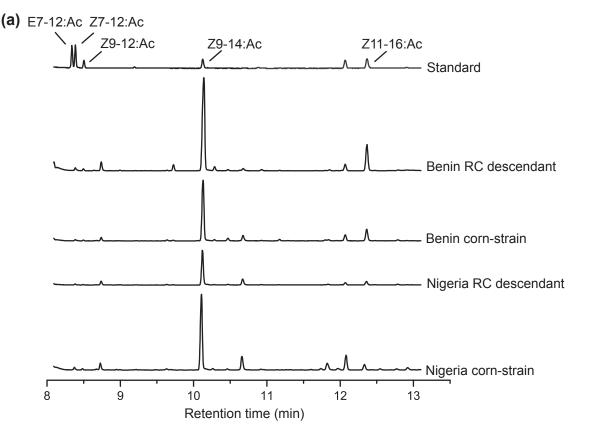
Sabine Haenniger<sup>1</sup>, Georg Goergen<sup>2</sup>, Mobolade Dele Akinbuluma<sup>3</sup>, Maritta Kunert<sup>4</sup>, David G. Heckel<sup>1</sup>, Melanie Unbehend<sup>1\*</sup>

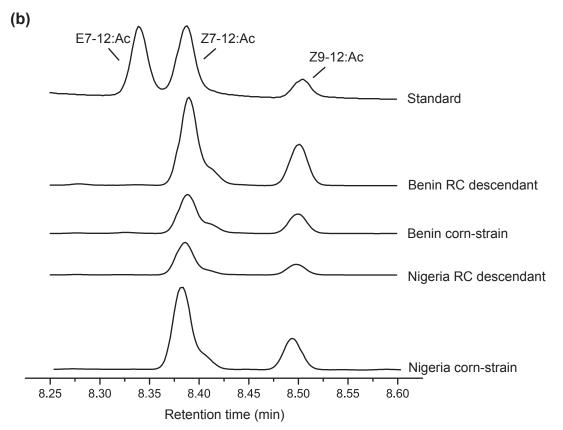
<sup>&</sup>lt;sup>1</sup>Department of Entomology, Max Planck Institute for Chemical Ecology, Hans-Knöll-Str. 8, 07745 Jena, Germany

<sup>&</sup>lt;sup>2</sup>International Institute of Tropical Agriculture, 08 BP 0932 Tri Postal, Cotonou, Benin <sup>3</sup>Department of Crop Protection and Environmental Biology, University of Ibadan, Ibadan, Nigeria

<sup>&</sup>lt;sup>4</sup>Department of Natural Product Biosynthesis, Max Planck Institute for Chemical Ecology, Hans-Knöll-Str. 8, 07745 Jena, Germany

<sup>\*</sup>Corresponding author. Tel.: +49 (0) 3641 57 1565, munbehend@ice.mpg.de





Supplementary Figure S1: Gas-chromatographic analysis of FAW pheromone glands from Benin and Nigeria. (a) Pheromone profiles of African FAW females compared with an standard containing five different compounds (E7-12:Ac, Z7-12:Ac, Z9-12:Ac, Z9-14:Ac, Z11-16:Ac). Each chromatogram represents a pooled sample of ten female pheromone glands. (b) Chromatogram of the selected ion monitoring run to confirm the absence of E7-12:Ac in African populations.

## Supplementary Table S1. Total pheromone amount of FAW females from Florida, Benin, and Nigeria.

Region	Strain (genetic marker)	Extraction	Total amount in ng <sup>2</sup>	Sample size
Florida <sup>1</sup>	Corn-strain (C <sub>COI</sub> -C <sub>TPI</sub> )	gland	11.5 <u>+</u> 1.8 <sup>c</sup>	n=29
	Rice-strain (R <sub>COI</sub> -R <sub>TPI</sub> )	gland	13.8 <u>+</u> 1.7 <sup>c</sup>	n=27
Benin	Corn-strain (C <sub>COI</sub> -C <sub>TPI</sub> )	gland	20.0 <u>+</u> 8.3 <sup>bc</sup>	n=10
	RC descendant (R <sub>COI</sub> -C <sub>TPI</sub> )	gland	8.5 <u>+</u> 1.3 <sup>c</sup>	n=26
Nigeria	Corn-strain (C <sub>COI</sub> -C <sub>TPI</sub> )	gland	35.3 <u>+</u> 9.6 <sup>ab</sup>	n=26
	RC descendant (R <sub>COI</sub> -C <sub>TPI</sub> )	gland	25.7 <u>+</u> 5.2 <sup>ab</sup>	n=26
Nigeria	Corn-strain (C <sub>COI</sub> -C <sub>TPI</sub> )	PDMS	10.6 <u>+</u> 3.9 <sup>c</sup>	n=22
		gland after PDMS	46.6 <u>+</u> 11.5 <sup>a</sup>	n=22

<sup>&</sup>lt;sup>1</sup>Data from field populations from Florida have been previously published <sup>16</sup> and were included for comparison.

<sup>&</sup>lt;sup>2</sup>Shown are mean values <u>+</u> standard errors. Different superscript letters indicate significant differences (GLM analysis; P<0.05).