



ELSEVIER

Contents lists available at ScienceDirect

## Data in Brief

journal homepage: [www.elsevier.com/locate/dib](http://www.elsevier.com/locate/dib)



### Data Article

# Data on the abundance of the banana weevil *Cosmopolites sordidus* and of the earwig *Euborellia caribea* in bare soil and cover crop plots



Dominique Carval<sup>a,\*</sup>, Rémi Resmond<sup>a</sup>, Raphaël Achard<sup>a</sup>,  
Philippe Tixier<sup>b,c</sup>

<sup>a</sup> Campus Agroenvironnemental Caraïbes, CIRAD, UPR GECCO, Petit Morne, F-97285 Le Lamentin, Martinique, France

<sup>b</sup> CIRAD, UPR GECCO, F-34398 Montpellier, France

<sup>c</sup> Departamento de Agricultura y Agroforestería, CATIE, CR-30501 Turrialba, Costa Rica

#### ARTICLE INFO

##### Article history:

Received 13 April 2016

Received in revised form

15 April 2016

Accepted 21 April 2016

Available online 27 April 2016

#### ABSTRACT

The data presented in this article are related to the research article entitled “Cover cropping reduces the abundance of the banana weevil *Cosmopolites sordidus* but does not reduce its damage to the banana plants” (Carval et al., in press) [1]. This article describes how the abundance of the banana weevil, *Cosmopolites sordidus*, and the abundance of the earwig *Euborellia caribea* were affected by the addition of a cover crop. The field data set is made publicly available to enable critical or extended analyzes.

© 2016 Published by Elsevier Inc. This is an open access article under the CC BY license

(<http://creativecommons.org/licenses/by/4.0/>).

#### Specifications Table

Subject area	Biology
More specific subject area	Field survey of a banana pest

DOI of original article: <http://dx.doi.org/10.1016/j.biocontrol.2016.04.004>

\* Corresponding author.

E-mail address: [dominique.carval@cirad.fr](mailto:dominique.carval@cirad.fr) (D. Carval).

<http://dx.doi.org/10.1016/j.dib.2016.04.056>

2352-3409/© 2016 Published by Elsevier Inc. This is an open access article under the CC BY license (<http://creativecommons.org/licenses/by/4.0/>).

Type of data	Table, figure, text file
How data was acquired	Field survey
Data format	Raw, filtered
Experimental factors	Features of the banana weevils (maturity) and spatial coordinates of samples were recorded
Experimental features	Field data: trap catches of weevils and earwigs in 3 bare soil and 3 cover crop plots of banana plants
Data source location	14°39'45.04"N; 60°59'59.08"W
Data accessibility	Data is available with this article

### Value of the data

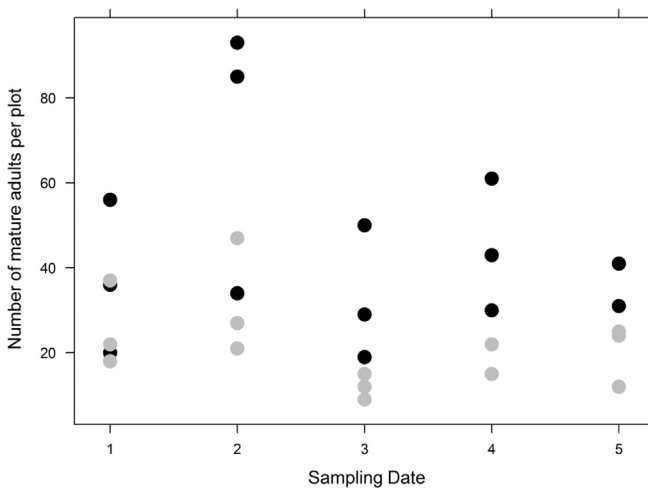
- The data is valuable for other researchers working on this pest or in similar scientific field.
- This data offers the opportunity to other researchers to compare with their own datasets.
- This data enables other researchers to independently verify or extend statistical analyses.

## 1. Data

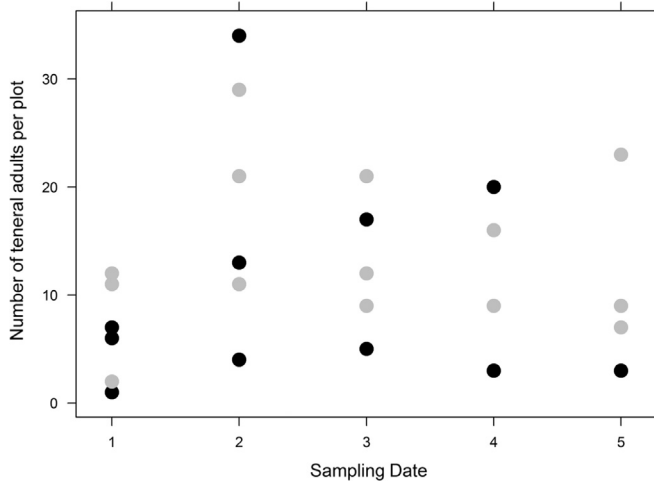
The dataset provided in this article gives information on the abundance of the banana pest *Cosmopolites sordidus* and the predator *Euborellia caraibea* in banana plots with or without the cover crop *Paspalum notatum*. Figs. 1–4 display details on the population dynamics and composition (teneral vs. mature weevils) across sampling dates. Table 1 provides the corresponding filtered data. Appendix A contains raw data with spatial coordinates.

## 2. Experimental design, materials and methods

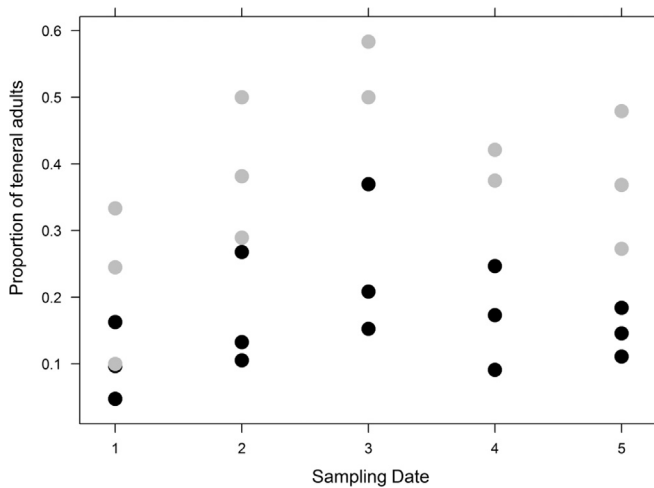
The experiment was conducted in six plots were established, each with an area of 361 m<sup>2</sup> and with 49 banana plants (Cavendish Grande Naine cultivar). The cover crop *P. notatum* was planted in three



**Fig. 1.** Number of the mature adults of *C. sordidus* per plot as affected by sampling date and soil cover. Black points: bare soil plots; gray points: cover crop plots.



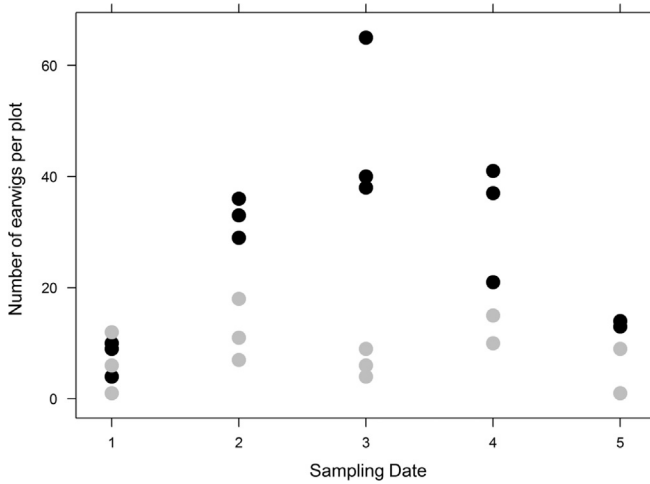
**Fig. 2.** Number of the teneral adults of *C. sordidus* per plot as affected by sampling date and soil cover. Black points: bare soil plots; gray points: cover crop plots.



**Fig. 3.** Proportion of teneral adults relative to all *C. sordidus* adults per plot as affected by sampling date and soil cover. Black points: bare soil plots; gray points: cover crop plots.

of the plots (CC soil type plots) while the other three plots were maintained with bare soil (BS soil type plots) through the use of herbicide (glyphosate). Banana weevil and earwig abundances were estimated with pseudostem traps deposited at the basis of each banana plant. We discriminated between teneral adult weevils and mature weevils based on exoskeleton color [2]. The data was recorded at the plant scale and associated with spatial coordinates of each banana plant.

The data presented in this article are related to the research article entitled "Cover cropping reduces the abundance of the banana weevil *Cosmopolites sordidus* but does not reduce its damage to the banana plants" (Carval et al., in press) [1].



**Fig. 4.** Number of the earwigs per plot as affected by sampling date and soil cover. Black points: bare soil plots; gray points: cover crop plots.

**Table 1**

Abundances of the earwig *E. carabea* and of the weevil *C. sordidus* (total, teneral and mature adult numbers) per plot at each sampling date. BS: bare soil plots; CC: cover crop plots.

Sampling date	Plot	Soil type	Number of earwigs	Number of weevils	Number of teneral weevils	Number of mature weevils	Proportion of teneral weevils (%)
1	P1	BS	9	43	7	36	16.28
2	P1	BS	29	98	13	85	13.27
3	P1	BS	38	59	9	50	15.25
4	P1	BS	41	81	20	61	24.69
5	P1	BS	13	48	7	41	14.58
1	P2	CC	12	33	11	22	33.33
2	P2	CC	11	76	29	47	38.16
3	P2	CC	9	36	21	15	58.33
4	P2	CC	10	24	9	15	37.50
5	P2	CC	1	19	7	12	36.84
1	P3	BS	10	62	6	56	9.68
2	P3	BS	36	127	34	93	26.77
3	P3	BS	40	46	17	29	36.96
4	P3	BS	37	52	9	43	17.31
5	P3	BS	14	27	3	24	11.11
1	P4	CC	6	49	12	37	24.49
2	P4	CC	18	38	11	27	28.95
3	P4	CC	4	18	9	9	50.00
4	P4	CC	15	38	16	22	42.11
5	P4	CC	1	33	9	24	27.27
1	P5	BS	4	21	1	20	4.76
2	P5	BS	33	38	4	34	40.53
3	P5	BS	65	24	5	19	20.83
4	P5	BS	21	33	3	30	9.09
5	P5	BS	13	38	7	31	18.42
1	P6	CC	1	20	2	18	10.00
2	P6	CC	7	42	21	21	50.00
3	P6	CC	6	24	12	12	50.00
4	P6	CC	15	24	9	15	37.50
5	P6	CC	9	48	23	25	47.92

## Acknowledgements

The authors thank J.J. Banidol, C. Hubervic, and M. Alier for help in the field. This work was supported by CIRAD and was funded by the projects “sustainable cropping systems design” from E.U. FEDER (Grants PRESAGE nos. 31106, 32139, and 33157).

## Appendix A. Supplementary material

Supplementary data associated with this article can be found in the online version at <http://dx.doi.org/10.1016/j.dib.2016.04.056>.

## References

- [1] D. Carval, R. Resmond, R. Achard, P. Tixier, Cover cropping reduces the abundance of the banana weevil *C. sordidus* but does not reduce its damage to the banana plants, *Biol. Control* 99 (2016) 14–18. <http://dx.doi.org/10.1016/j.biocontrol.2016.04.004>.
- [2] C.S. Gold, E.J. Pena, E.B. Ekaramura, Biology and integrated pest management for the banana weevil *C. sordidus* (Germar) (Coleoptera: Curculionidae), *Integr. Pest. Manag. Rev.* 6 (2001) 79–155.