Bulletin of Insectology Supplemental Material

Title: Climate warming affects phenology of *Bactrocera dorsalis*: a case study of Fujian and Guangxi, China

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Table S1. References consulted regarding distributions and population dynamics of *Bactrocera dorsalis* in Guangxi and Fujian Province from January 1991 to March 2021.

Article title	Authors	Journal (Publication)	Publication year	Issue	Pages
Fujian Province		(r denounch)	<i>j</i>		
Surveillance of Bactrocera dorsalis epidemic in Xiamen area	Lin Zhenji, Sun Guokun, Gao Quanzhun, Lin Jinyao, Zhang Qingyuan, Chen Huazhong, Chen Jiafu, Xu Yongqian, Sun Dehua, Hong Zanqiao	Entomological Journal of East China	1998	2	3-5
Study on the developmental period and population dynamic of Bactrocera dorsalis	Huang Zheng	Entomological Journal of East China		4	307-310
The propagation characteristic of oriental fruit fly, Bactrocera dorsalis and control technique	Huang Yueying, Chen Jun	Entomological Journal of East China		1	63-66
A preliminary study on the effects of climatic factors on the population growth and decline of citrus fruit		China Plant Protection	2006	11	24-25
Growth and decline of Bactrocera dorsalis and its parasitic wasps	Liang Guanghong, Wu Ying, Chen Jiahua	Journal of Southwest Forestry College		6	72-74+78
Occurrence, growth, decline and control techniques of Bactrocera dorsalis in Yunxiao county	Wu Jinquan	Chinese Agricultural Science Bulletin		12	59-60
Field population dynamics of oriental fruit in Fujian province Zhou W Occurrence and damage of <i>Bactrocera dorsalis</i> and integrated control technology	eichuan, Li Weifeng, Zhan Kaiduan, Zhao Shixi, Chen Shouling, Ning Zhaozhu, Zhang Ho Li Zongbao	Fujian Fruits	2008	1	26-30 33-34
	· · · · · · · · · · · · · · · · · · ·	Fujian Agriculture And Forestry		1	33-34
Studies on population dynamics and field control of <i>Bactrocera dorsalis</i> (Hendel)	Zheng Sining	University	2009		
Occurrence and damage regularity of citrus fruit fly in Yongchun and its control countermeasures	Liu Zhendong	China Plant Protection	2010	9	30-31
The main pest species and their occurrence regularity in the guava orchards imported into Fujian from Taiwan	Wu Meixiang, Liu Changming, Guo Ying, Fu Jianwei, Zhang Li, Chen Zhenzhen, Wu Guiyan, You Daiwu	Wuyi Science Journal	2012	0	68-72
Population dynamics and density of <i>Bactrocera dorsalis</i> (Hendel) in different habitats	Zheng Sining	Acta Ecologica Sinica	2013	24	7699-770
Test on the dynamics of <i>Bactrocera dorsalis</i> Hendel in <i>Averrhoa carambola</i> L. orchards of Yunxiao county and its control	Lin Laijin	Subtropical Agriculture Research	2014	1	23-26
Occurrence characteristics and control measures of Bactrocera dorsalis in Yongan city	Yu Youqing, Ji Cuihong, Lin Jixiu, Huang Peizhi, Luo Xiangyang	Modern Agricultural Science and Technology	2014	10	141-142
Growth and decline regularity and integrated control technology of <i>Bactrocera dorsalis</i> in Yunxiao county	Zhang Mingzhen	Agriculture and Technology	2017	22	22-23
Occurrence regularity of Bactrocera dorsalis in loquat orchard in Yunxiao county	Zhang Hong	Modern Agricultural Science and Technology	2021	16	114-116 +120
Guangxi Province		recimology			. 120
Investigation and control technology of citrus fruit fly damaging mango	Luo Mingrong, Lu Junbu	Guangxi Plant Protection	1991	02	44-47
Investigation and bagging control of citrus fruit fly in guava orchard in Guangxi province	Lei Yanmei, Liao Dongqing, Huang Shuchang, Xie Liyuan	China Tropical Agriculture	2007	02	50-51
Occurrence and control of citrus fruit fly in Beiliu	Luo Zhaonan, Fan Tiebing, Liu Tianzhao	Southern Horticulture	2010	02	31-32+34
Observation on population growth and decline of citrus fruit fly in citrus orchard	Yuan Hui, Li Anguo, Li Deming, Jia Fanghu, Huang Chaoyan, Liang Zailin	Southern Horticulture	2011	03	27-28
Dynamic monitoring of field growth and decline of citrus fruit fly	Yuan Hui, Li Anguo, Wu Min, Luo Biao, Liu Zhaohong	Plant Quarantine	2012	06	81-83
	Huang Qingwen, Chen Binyan, Li Yujian, Bei Jinbiao, He Yan, Yang Li, Qiu Fei	Journal of Guangxi Agriculture	2012	02	7-10
Research on the occurrence and controlling measures of <i>Bactrocera dorsalis</i> Hendel forpersimmon in Pingle county	Zhai Jiming, Lin Lipei, Liu Zhaohong	Journal of Guangxi Agriculture	2015	06	22-24
Investigation on occurrence characteristics and growth and decline regularity of citrus fruit fly	Liao Guoxin, Huang Chaoyan, Huang Xiaoling, Wang Yihua	Modern Agricultural Science and Technology	2018	14	117-118
Preliminary study on fruit fly monitoring and green control technology in pear orchard in Guanyang county	Sun Taihua	Guangxi Plant Protection	2018	01	41-43
Population dynamics of <i>Bactrocera dorsalis</i> and the damage caused by this pest in citrus orchards	Wang Mingzhao, Yang Tingmi, Zhao Xiaolong, Zhang Jinsong, Li Xianliang, Lou Binghai, Huang Huiying	Chinese Journal of Applied Entomology	2019	03	485-491
Study on the population dynamics of <i>Bactrocera dorsalis</i> (Hendel) in the north of Guilin	Wang Mingzhao, Li Ping, Tang Xiansheng, Zhao Xiaolong, Deng Chongling, Yang Tingmi, Li Xianliang, Chen Chuanwu, Wu Renchao	Southern Horticulture	2019	01	1-3
Study on the regulation of <i>Bactrocera dorsalis</i> (Hendel) in the major persimmon producing areas of Guangxi	Wu Fumin	Guangxi University	2019	01	74
Population dynamics of <i>Bactrocera dorsalis</i> (Hendel) at different habitatsin relation to meteorological factors	Quan Jincheng, Wan Baoxiong, Jiang Yihong, Men Youjun, Huang Jinmeng, Chen Guifeng, Lu Wen, Zheng Xialin	Journal of Fruit Science	2019	06	785-792
Study on oviposition selectivity of Batrocera dorsalis (Hendel) to several different species of pitaya	Huang Huixin	Guangxi University	2020	02	84
Studies on the pattern of transferring damage and host preference of <i>Bactrocera dorsalis</i> (Hendel) in the guava producing area	Huang Ailing	Guangxi University	2020	02	81
Population dynamics, Emigration and infestation regulations of <i>Bactrocera dorsalis</i> (Hendel) in major plum production areas of HeZhuo city	Li Yuan	Guangxi University	2020	02	92
Effect of protein attractant on green control of citrus fruit fly in pear orchard	Sun Taihua, Wang Huasheng, Xiong Xijiao, Chen Guixiang, Zhai Yongsheng, Liao Hongwei, Chen Lili, Zhang Xueli	China Plant Protection	2020	03	61-63+74
Simple comparison of trapping effect of different combinations of attractants and trap devices on fruit fly	Sun Taihua, Wang Huasheng, Xiong Xijiao, Zhai Yongsheng, Liao Hongwei	Guangxi Plant Protection	2020	04	15-18+23
Study on occurrence regularity and oviposition selectivity of <i>Bactrocera dorsalis</i> on max apple	Zhou Shuangyun, Liu Zengliang, Long Xing, Tang Wenzhong, Fang Ren, Deng Biao, An Zhenyu, Yao Jinyan	South China Fruits	2020	01	65-69
Temporal trend in damage to different fruit crops caused by <i>Bactrocera dorsalis</i> (Hendel) adults in plum producing areas	Li Yuan, Yi Xiaolong, Huang Ailing, Huang Huixin, Wang Xiaoyun, Zheng Xialin, Lu Wen	Chinese Journal of Applied Entomology	2021	03	714-723

Table S2. Phenological records of *Bactrocera dorsalis* in Fujian Province, from historical literature.

District	Prefecture-level city	Record number of each city	Record number of each district	Total
South Fujian	Xiamen City	24		
	Zhangzhou City	11	36	
	Quanzhou City	2		
Northern Fujian	Nanping city	0	0	-
Eastern Fujian Western Fujian	Fuzhou City	13		51
	Ningde City	0	14	
	Putian City	1		
	Sanming City Longyan City	0 0	0	

Table S3. Phenological records of *Bactrocera dorsalis* in Guangxi Province, China from historical literature.

District	Prefecture-level city	Record number of each city	Record number of each district	Total
Northern Guangxi	Guilin City	44		
	Hezhou City	16	60	
	Liuzhou City	0		
Western Guangxi	Baise City	3		
	Hechi City	0	3	
	Chongzuo City	0		
Southern Guangxi	Fangchenggang City	0		95
	Nanning City	18	10	
	Qinzhou City	0	18	
	Beihai City	0		
Eastern Guangxi	Laibin City	0		
	Wuzhou City	0	1.4	
	Guigang City	0	14	
	Yulin City	14		

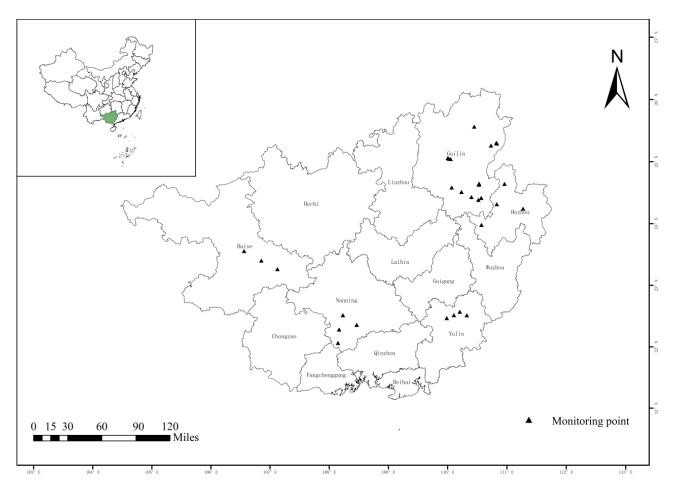


Figure S1. Distribution of *Bactrocera dorsalis* in Guangxi Province, China which phenological data were extracted in this research.

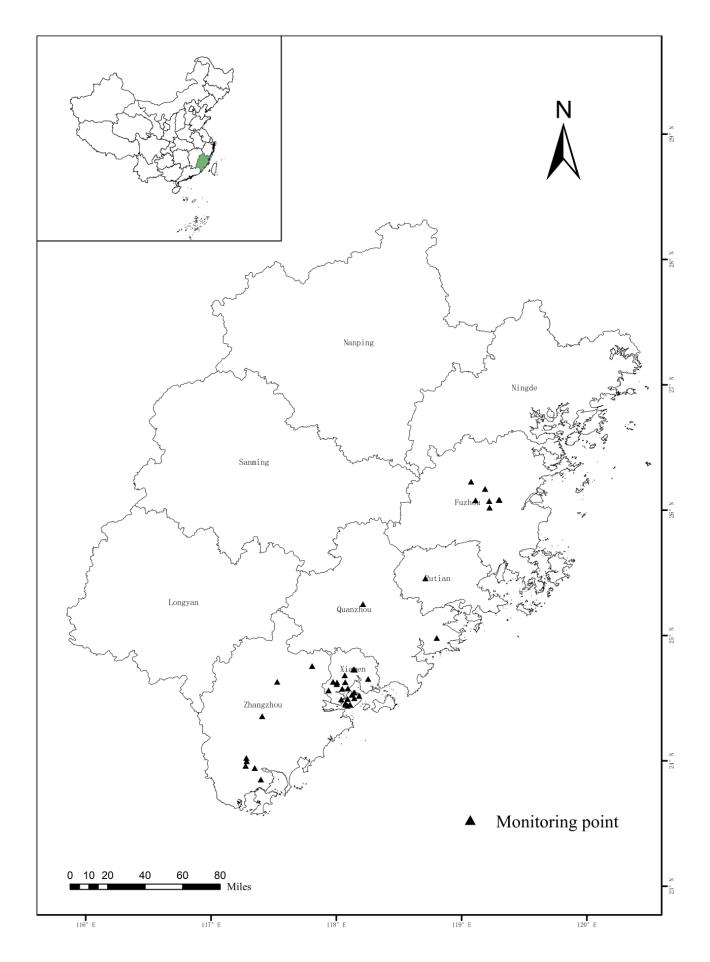


Figure S2. Distribution of *Bactrocera dorsalis* in Fujian Province, China which phenological data were extracted in this research.