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前沿资讯

1. Tea production falls across India in January（1月份印度的茶叶产量下降）

简介：Tea production saw a decline across the country during January at 13.96 million kg , comprising 7.81 million kg by big growers, the data said, as against 17.68 million kg in the corresponding period a year ago, according to latest Tea Board data. There was practically no production in north India in January, due to a ban imposed on plucking, it said.

来源：The Economic Times 网站

发布日期:2019-03-05

全文链接:http://agri.ckcest.cn/file1/M00/06/60/Csgk0FyA3XGAemUrAANJc9USBvE648.pdf

2. Ancient Wild Forest of Assamica Trees Discovered（印度阿萨姆发现古代野生茶林）

简介：Pradip Baruah 是一位著名的茶叶研究者和探险家，多年来一直在大雅鲁藏布江流域的丛林中徒步旅行，记录了各种各样的品种，并收集了他在阿萨姆邦乔哈特的Tocklai 茶叶研究所担任首席顾问官时使用的样品。这位探索阿鲁纳恰尔邦丘陵地区Tirap区的茶叶研究人员拍摄了一种古老的山茶花（Assllica），这是一种与中国茶树（*Camellia Sinensis*）截然不同的大叶茶。这一发现具有重要意义，因为国际基因组研究描述了阿萨姆山茶花的起源。这些茶树可能是原始的山茶属茶树，分布在在印度东北部的七个州。

来源：World Tea News 网站

发布日期:2019-02-04

全文链接:http://agri.ckcest.cn/file1/M00/06/60/Csgk0FyA6AuAN8eZAAUsOSYcvoI940.pdf

学术文献

1. Vibrational mating disruption of *Empoasca vitis* by natural or artificial disturbance noises（利用自然或人为的干扰噪声对小绿叶蝉（*Empoasca vitis*）的振动交配干扰）

简介：Background：The green leafhopper, *Empoasca vitis*, is a polyphagous pest of grapevine and tea plants. To date population density is controlled primarily by insecticides and there is a demand for more sustainable controls. To develop a vibrational mating disruption method, the natural occurrence of a ‘disruptive signal’ was investigated. Further, the efficacy of natural and artificial ‘disruptive signals’ was determined. Results ：With behavioral trials we described male rivalry and recorded a species-specific disruptive signal (DP). The DP, a single pulse overlapping the competitor male call, interfered with the rival's ability to locate the female. Laboratory playback disruption trials revealed that the pair formation process was prevented by artificial disturbance noises that included the following features: *E. vitis* DP, *Scaphoideus titanus* disturbance noise, and a pure tone (250Hz). Among these, the pure tone was most efficient at preventing mating. Conclusion：Results support development of a vibrational mating

disruption method as a control strategy for *E. vitis*. To simultaneously disrupt the mating of *E. vitis* and S. titanus, the possibility of applying the *S. titanus* disturbance noise combined with the pure tone is discussed.

来源： Pest Management Science 期刊

发布日期: 2018-09-22

全文链接: http://agri.ckcest.cn/file1/M00/06/5F/Csgk0Fx9MAeAILl8AAxPhZ4GdtQ917.pdf

2. Between-group variation in *Enchenopa* treehopper juvenile signaling (Hemiptera Membracidae)（硬鳞目角蝉幼体信号的群体间变异（半翅目膜甲科））

简介： Social plasticity may be an important originator of divergence in mating signals and other sexual traits. Understanding the evolutionary causes and consequences of social plasticity requires analyzing how different features of the social environment influence the expression of signals and preferences. Here we focus on experience of signaling environments. We adopt the vantage point of a hypothetical focal juvenile individual, and ask whether its experience of the interactions between other individuals in the group would vary across groups of different size and species composition. We worked with *Enchenopa* treehoppers, group-living herbivorous insects that communicate with plant-borne vibrational signals as juveniles and adults. We manipulated group composition and size experimentally and monitored the behavior of the juvenile treehoppers. We found that the treehoppers' signaling rates varied with group type, size, and disturbance. Although our results likely underestimate the range of variation in behavior across groups of juveniles, they suggest that variation in the experience of signaling environments during juvenile development has the potential to contribute to social plasticity in the mating signals and mate preferences.

来源： Journal Ethology Ecology & Evolution 期刊

发布日期: 2017-07-21

全文链接: http://agri.ckcest.cn/file1/M00/06/5F/Csgk0Fx9JN6AQV9BABM8-9OJeGQ512.pdf

3. Substrate-Borne Vibrational Signals in Mating Communication of *Macrolophus* Bugs（*Macrolophus* 昆虫交配传播中的底物源振动信号）

简介： The mirid bugs *Macrolophus pygmaeus* and *M. costalis* use substrate-borne vibrational signals during pair formation and in male-male interactions as determined by laser vibrometry. The vibrational communication of *Macrolophus* is more complex than in other mirids, with a signal repertoire composed of two elements, only produced by males, while the females are mute. The "yelp" signal consists of one or several consecutive brief pulses with harmonic structure and is commonly produced by stationary males before mating, as a key-element of courtship. "Yelping" is also associated with contacts between males. The "roar" signal differs from "yelps" in that it has a broadband frequency pattern, a longer and more variable duration than "yelping", and is produced by males in association with walking on the leaf. Playback experiments did not affect male vibration emission, but when "roaring" was used as stimulus, it elicited a significant increase in the time spent walking. We detected significant differences between *M. costalis* and *M. pygmaeus* in some spectral parameters of the "roar" and "yelp"

signals, so these signals could contain species-specific information. We conclude that “roaring” and “yelping” vibrational signals are used by *Macrolophus* in social communication, in particular in the context of mating behavior.

来源： Journal of Insect Behavior 期刊

发布日期: 2015-08-18

全文链接: http://agri.ckcest.cn/file1/M00/06/5F/Csgk0Fx9NfGAUsT8ABJ4homOl68855.pdf

4. Vibrational Communication Networks: Eavesdropping and Biotic Noise（振动传播网络：窃听和生物噪声）

简介： In nature, communication predominantly occurs in a group of several conspecific and/or heterospecific individuals within signaling and receiving range of each other, i.e., in a network environment. Vibrational communication in the context of sexual behavior has been, in the past, usually considered as a private communication channel, free of potential competitors and eavesdropping predators or parasitoids and consequently only rarely studied outside an emitterreceiver dyad. We provide an overview of work related to vibrational communication in the presence of (a) environmental (abiotic) noise, (b) other conspecific and/or heterospecific signalers (biotic noise), (c) rivals and (d) exploiters (predators and parasitoids). The evidence gathered in the last few years shows that arthropods relying on substrate-borne vibrations communicate within a rich and complex vibrational world and reveals diverse interactions and mechanisms. Considering vibrational communication from a network perspective may allow us in the future to identify sources of selection pressures that cannot be recognized in a communication dyad.

来源： Studying Vibrational Communication 图书

发布日期: 2014-07-26

全文链接: http://agri.ckcest.cn/file1/M00/06/5F/Csgk0Fx9LEmAfGAfAA6NjAJik1Q839.pdf