

On the Coccinellidae Collected from Areca Palm on Hainan Island, China

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ABSTRACT

In this paper, 18 species of Coccinellidae collected from areca palm on Hainan Is., China are reported.

Key words: Coccinellidae, arecanut, Hainan Island.

Introduction

Areca palm is an important tropical crop which can be infested with scale insects, aphids, whiteflies, and mites. During our research, we discovered that the resources of predatory coccinellids abound. For this reason, in 1995-1996 we systematically collected coccinellids from areca palm on Hainan Island, and preliminary identification indicated that there are 18 species of coccinellids.

1. *Pharoscyrnus taoi* Sasaji, 1967

Pharoscyrnus taoi Sasaji, 1967

Pharoscyrnus taoi: Pang et Mao, 1978; 1979; Peng et al., 1997

Distribution: Hainan (Jianfengling, Bawangling, Danzhou, Changjiang, Wenchang), Guangdong, Guangxi, Taiwan.

Specimens examined: 2 ♂ ♀, Jianfengling, Hainan Is., Sept. 1995; 4 ♂ ♀, Bawangling, Hainan Is., Sept. 1995; 13 ♂ ♀, Liangyuan, Danzhou City, Hainan Is., Aug. 1995; 58 ♂ ♀, Nanfeng Town, Danzhou City, Aug.

1995; 1 ♀, Liangyuan, Danzhou City, Hainan Is., Apr. 1996; 2 ♂ ♀, Shilu Town, Changjiang Co., Aug. 1995; 2 ♂ ♀, Dongzhai Bay, Wenchang Co., Hainan Is., Sept. 1995.

2. *Stethorus* (*Allostethorus*) *parapauperculus* Pang, 1966

Stethorus parapauperculus Pang, 1966

Stethorus (*Allostethorus*) *parapauperculus*: Pang et Mao, 1975; 1978; 1979; Cao, 1992; Ren et Pang, 1996; Peng et al., 1997

Distribution: Hainan (Haikou, Danzhou, Qiongzong, Baoting, Qionghai, Wenchang), Guangdong, Yunnan.

Specimens examined: 2 ♂ ♀, Haikou City, Hainan Is., Apr. 1996; 2 ♂ ♀, Liangyuan, Danzhou City, Hainan Is., Aug. 1995; 1 ♀, Yangjiang Farm, Qiongzong Co., Hainan Is., Sept. 1995; 2 ♂ ♀, Sandao Farm, Baoting Co., Hainan Is., Sept. 1995; 2 ♂ ♂, Dongpin Farm, Qionghai Co., Hainan Is., Apr. 1996; 2 ♂ ♀, Dongjiao Town, Wenchang, Co., Hainan Is., Sept. 1995.

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3. *Stethorus (Allostethorus) vietnamicus*

Hoang, 1979

Stethorus (Allostethorus) vietnamicus
Hoang, 1979; Pu, 1990; Ren et Pang,
1996; Peng et al., 1997

Distribution: Hainan (Jianfengling, Diaolu Mt., Haikou, Danzhou, Qiongzong, Baoting, Ledong, Tongshi, Qionghai, Wenchang), Guangxi; Vietnam.

Specimens examined: 1 ♂, Jianfengling, Hainan Is., Apr. 1996; 1 ♂, Diaolu Mt., Hainan Is., May 1996; 9 ♂ ♀, Liangyuan, Danzhou City, Hainan Is., Aug. 1995; 3 ♂ ♀, Nanfeng Town, Danzhou City, Hainan Is., Sept. 1995; 2 ♂ ♀, Sandao Farm, Baoting Co., Hainan Is., Sept. 1995; 2 ♂ ♀, Chongpo Town, Ledong Co., Hainan Is., Apr. 1996; 2 ♂ ♀, Jianfeng Town, Ledong Co., Hainan Is., Sept. 1995; 2 ♂ ♀, Tongshi City, Hainan Is., Aug. 1995; 3 ♂ ♀, Dongpin Farm, Qionghai Co., Hainan Is., Apr. 1996; 2 ♂ ♀, Dongjiaoyelin, Wenchang Co., Hainan Is., Sept. 1995; 2 ♂ ♀, Dongzhai Bay, Wenchang Co., Hainan Is., Sept. 1995; 14 ♂ ♀, Dongjiao Town, Wenchang Co., Hainan Is., Sept. 1995.

4. *Axinoscymnus beneficus* Kamiya, 1963

Axinoscymnus beneficus Kamiya, 1963;
1965; Sasaji, 1971; Yang, 1972; Yu et al.,
1993; Peng et al., 1997

Distribution: Hainan (Wuzhi Mt., Diaolu Mt., Bawangling, Haikou, Danzhou, Lingao, Tongshi, Qiongzong, Ledong, Baoting, Qionghai, Wenchang, Tunchang), Guangdong, Taiwan; Japan.

Specimens examined: 3 ♂ ♀, Wuzhi Mt., Hainan Is., May 1996; 1 ♀, Bawangling, Hainan Is., Mar. 1996; 2 ♂ ♀, Diaolu Mt., Hainan Is., May 1996; 10 ♂ ♀, Diaolu-shan Forestry Center, Hainan Is., July 1995; 5 ♂ ♀, Haikou City, Hainan Is., Aug. 1995; 28 ♂ ♀, Haikou City, Hainan Is., Apr. 1996; 12 ♂ ♀, Nanfeng Town, Danzhou City, Hainan Is., Aug. 1995; 4 ♂ ♀, Nanfeng Town, Danzhou City, Hainan Is., Apr. 1996; 55 ♂ ♀, Liangyuan, Danzhou City, Hainan Is., Aug. 1995; 19 ♂ ♀, Lia-

ngyuan, Danzhou City, Hainan Is., Apr. 1996; 72 ♂ ♀, Honghua Farm, Lingao Co., Hainan Is., Apr. 1996; 2 ♂ ♀, Tongshi City, Hainan Is., Aug. 1995; 1 ♀, Jianfeng Town, Ledong Co., Hainan Is., Sept. 1995; 23 ♂ ♀, Nanfang Farm, Qiongzong Co., Hainan Is., Apr. 1996; 1 ♀, Changzheng Farm, Qiongzong Co., Hainan Is., Apr. 1996; 33 ♂ ♀, Sandao Farm, Baoting Co., Hainan Is., Sept. 1995; 27 ♂ ♀, Dongpin Farm, Qionghai Co., Hainan Is., Apr. 1996; 15 ♂ ♀, Dongzhai Bay, Wenchang Co., Hainan Is., Sept. 1995; 3 ♂ ♀, Dongjiaoyelin, Wenchang Co., Hainan Is., Sept. 1995; 6 ♂ ♀, Chenxing Farm, Tunchang Co., Hainan Is., Mar. 1996.

5. *Clitostethus sternalis* (Pang et Gordon, 1986)

Pseudoscymnus sternalis Pang et Gordon,
1986

Clitostethus sternalis: Pang et Yu, 1991;
Peng et al., 1997

Distribution: Hainan (Bawangling, Qiongzong, Dingan, Baoting, Qionghai), Guangdong.

Specimens examined: 1 ♂, Bawangling, Hainan Is., Mar. 1996; 1 ♂, Maoyang Town, Qiongzong Co., Hainan Is., May 1996; 2 ♂ ♂ 6 ♀ ♀, Nanfang Farm, Qiongzong Co., Hainan Is., Apr. 1996; 1 ♂, Changzheng Farm, Qiongzong Co., Hainan Is., Apr. 1996; 1 ♂ 1 ♀, Zhongrui Farm, Dingan Co., Hainan Is., Apr. 1996; 1 ♂ 1 ♀, Sandao Farm, Baoting Co., Hainan Is., Sept. 1995; 2 ♂ ♂ 2 ♀ ♀, Dongtai Farm, Qionghai Co., Hainan Is., Apr. 1996.

6. *Keiscymnus taiwanensis* Yang et Wu, 1972

Keiscymnus taiwanensis Yang et Wu,
1972; Peng et al., 1997

Scymnus (Pullus) sternitus Pang et Gordon, 1986

Distribution: Hainan (Jianfengling, Bawangling, Danzhou, Lingao, Qiongzong, Tongshi, Ledong, Qionghai, Wenchang), Taiwan.

Specimens examined: 1 ♂, Jianfengling,

Hainan Is., Apr. 1996; 2♂♂, Bawangling, Hainan Is., Sept. 1995; 2♂♀, Danzhou Forestry Center, Danzhou City, Hainan Is., Apr. 1996; 3♂♀, Liangyuan, Danzhou City, Hainan Is., Apr. 1996; 2♂♀, Honghua Farm, Lingao Co., Hainan Is., Apr. 1996; 1♂, Yangjiang Farm, Qiongzong Co., Hainan Is., Sept. 1995; 5♂♀, Tongshi City, Hainan Is., Aug. 1995; 6♂♀, Jianfeng Town, Ledong Co., Hainan Is., Sept. 1995; 6♂♀, Chongpo Town, Ledong Co., Hainan Is., Apr. 1996; 3♂♀, Dongpin Farm, Qionghai Co., Hainan Is., Apr. 1996; 1♂, Dongjiaoyelin, Wenchang Co., Hainan Is., Sept. 1995; 7♂♀, Dongjiao Town, Wenchang Co., Hainan Is., Sept. 1995.

7. *Scymnus (Pullus) dicorycus* Pang et Huang, 1986

Scymnus (Pullus) dicorycus Pang et Huang, 1986; Huang et Pang, 1991; Kuznestov et Ren, 1991; Yu et al., 1993; Peng et al., 1997

Distribution: Hainan (Wenchang, Baoting, Danzhou), Fujian, Guangdong; Vietnam.

Specimens examined: 2♂♂1♀, Dongzhai Bay, Wenchang Co., Hainan Is., Sept. 1995; 1♂, Sandao Farm, Baoting Co., Hainan Is., Sept. 1995; 4♂♀, Liangyuan, Danzhou City, Hainan Is., Sept. 1995; 1♀, Danzhou Forestry Center, Danzhou City, Hainan Is., Apr. 1996.

8. *Scymnus (Pullus) koebelei* (Pang et Gordon, 1986)

Keiscymnus koebelei Pang et Gordon, 1986
Scymnus (Pullus) koebelei: Pang et Yu, 1991; Yu et Pang, 1992; Peng et al., 1997
Scymnus (Pullus) xanthostethus Pang et Pu, 1990

Distribution: Hainan (Jianfengling, Wuzhi Mt., Haikou, Danzhou, Tongshi, Qiongzong, Qionghai, Dingan), Fujian, Guangdong, Guangxi.

Specimens examined: 1♂1♀, Jianfengling, Hainan Is., Apr. 1996; 2♂♂, Wuzhi Mt., Hainan Is., May 1996; 3♂♀, Liangyuan,

Danzhou City, Hainan Is., Apr. 1996; 1♀, Danzhou Forestry Center, Danzhou City, Hainan Is., Apr. 1996; 4♂♀, Tongshi City, Hainan Is., Aug. 1995; 1♀, Maoyang Town, Qiongzong Co., Hainan Is., Sept. 1995; 5♂♀, Yangjiang Farm, Qiongzong Co., Hainan Is., Sept. 1995; 40♂♀, Dongping Farm, Qionghai Co., Hainan Is., Apr. 1996; 13♂♀, Zhongrui Farm, Dingan Co., Hainan Is., Apr. 1996.

9. *Scymnus (Pullus) taiwanus* (Ohta, 1929)

Pullus taiwanus Ohta, 1929

Scymnus (Pullus) taiwanus: Korschevsky, 1931; Mader, 1955; Kamiya, 1965; Pang et Gordon, 1986; Kuznetsov et Ren, 1991; Yu et Pang, 1992; Peng et al., 1997

Scymnus (Pullus) quadrillum: nec., Motschulsky, 1850; Yang, 1978; Hoang, 1982

Distribution: Hainan (Bawangling, Danzhou, Changjiang, Ledong, Qiongzong), Taiwan, Guangdong, Guangxi, Fujian, Zhejiang; the Philippines; Vietnam.

Specimens examined: 1♂2♀♀, Bawangling, Hainan Is., Sept. 1995; 6♂♀, Nanfeng Town, Danzhou City, Hainan Is., Aug. 1995; 2♂♀, Shilu Town, Changjiang Co., Hainan Is., Aug. 1995; 1♂, Jianfeng Town, Ledong Co., Hainan Is., Sept. 1995; 1♀, Maoyang Town, Qiongzong Co., Hainan Is., Sept. 1995.

10. *Scymnus (Pullus) tenuis* Yang, 1978

Scymnus (Pullus) tenuis Yang, 1978; Huang et Pang, 1991; Kuznestov et Ren, 1991; Yu et al., 1993; Peng et al., 1997

Scymnus (Pullus) longisiphonulis Cao et Xiao, 1984

Scymnus (Pullus) longisiphonulus Pang et Gordon, 1986

Distribution: Hainan (Diaoluo Mt., Bawangling, Haikou, Danzhou, Ledong, Wenchang), Taiwan, Yunnan, Guangdong, Fujian; Vietnam.

Specimens examined: 2♂♂, Shijing, Diaoluo Mt., Hainan Is., Sept. 1995; 1♂, Bawangling, Hainan Is., Aug. 1995; 1♂,

Haikou City, Hainan Is., Aug. 1995; 4 ♂ ♀, Nanfeng Town, Danzhou City, Hainan Is., Aug. 1995; 15 ♂ ♀, Liangyuan, Danzhou City, Hainan Is., Aug. 1995; 5 ♂ ♀, Liangyuan, Danzhou City, Hainan Is., Apr. 1996; 6 ♂ ♀, Danzhou Forestry Center, Danzhou City, Hainan Is., Apr. 1996; 2 ♂ ♀, Jianfeng Town, Ledong Co., Hainan Is., Sept. 1995; 2 ♂ ♂ 1 ♀, Dongzhai Bay, Wenchang Co., Hainan Is., Sept. 1995.

11. *Scymnus (Pullus) yangi* Yu et Pang, 1992

Scymnus (Pullus) yangi Yu et Pang, 1992; Yu, 1995; Peng et al., 1997

Scymnus (Pullus) bicolor Yang, 1978

Scymnus (Pullus) endocorycus Pang et Huang, 1986

Scymnus (Pullus) vimphuensis Hoang, 1982

Distribution: Hainan (Limu Mt., Diaoluo Mt., Bawangling, Jianfengling, Wuzhi Mt., Danzhou, Tongshi), Taiwan, Zhejiang, Fujian, Guangdong; Vietnam.

Specimens examined: 2 ♂ ♂, Limu Mt., Hainan Is., Sept. 1995; 3 ♂ ♂, Limu Mt., Hainan Is., Apr. 1996; 1 ♂, Shijing, Diaoluo Mt., Hainan Is., Sept. 1995; 1 ♂ 2 ♀ ♀, Diaoluo Mt., Hainan Is., May 1995; 1 ♂ 1 ♀, Yajia, Bawangling, Hainan Is., Aug. 1995; 22 ♂ ♀, Bawangling, Hainan Is., Mar. 1996; 3 ♂ ♀, Tianchi, Jianfengling, Hainan Is., Sept. 1995; 5 ♂ ♀, Jianfengling, Hainan Is., Sept. 1995; 2 ♂ ♀, Jianfengling, Hainan Is., Apr. 1996; 2 ♂ ♂ 2 ♀ ♀, Wuzhi Mt., Hainan Is., May 1996; 1 ♂ 1 ♀, Shamaoling, Danzhou City, Hainan Is., Aug. 1995; 1 ♀, Nanfeng Town, Danzhou City, Hainan Is., Apr. 1996; 14 ♂ ♀, Liangyuan, Danzhou City, Hainan Is., Aug. 1995; 13 ♂ ♀, Liangyuan, Danzhou City, Hainan Is., Apr. 1996; 9 ♂ ♀, Danzhou Forestry Center, Danzhou City, Hainan Is., Apr. 1996; 2 ♂ ♀, Tongshi City, Hainan Is., Aug. 1995.

12. *Cryptogonus guangdongiensis* Pang et Mao, 1979

Cryptogonus guangdongiensis Pang et

Mao, 1979; Peng et al., 1997

Distribution: Hainan (Wuzhi Mt., Diaoluo Mt., Haikou, Danzhou, Baoting, Qiongzong, Qionghai, Dingan, Wenchang), Guangdong.

Specimens examined: 1 ♀, Wuzhi Mt., Hainan Is., May 1996; 5 ♂ ♀, Diaoluoshan Forestry Center, Hainan Is., Sept. 1995; 19 ♂ ♀, Diaoluo Mt., Hainan Is., May 1996; 2 ♂ ♀, Haikou City, Hainan Is., Apr. 1996; 4 ♂ ♀, Liangyuan, Danzhou City, Hainan Is., Aug. 1995; 1 ♀, Liangyuan, Danzhou City, Hainan Is., Apr. 1996; 2 ♂ ♀, Sandao Farm, Baoting Co., Hainan Is., Sept. 1995; 1 ♂, Maoyang Town, Qiongzong Co., Hainan Is., May 1996; 2 ♂ ♀, Nanfang Farm, Qiongzong Co., Hainan Is., Apr. 1996; 12 ♂ ♀, Dongpin Farm, Qionghai Co., Hainan Is., Apr. 1996; 6 ♂ ♀, Zhongrui Farm, Dingan Co., Hainan Is., Apr. 1996; 3 ♂ ♀, Dongzhai Bay, Wenchang Co., Hainan Is., Sept. 1995.

13. *Cryptogonus wuzhishanus* Pang et Mao, 1979

Cryptogonus wuzhishanus Pang et Mao, 1979; Peng et al., 1997

Distribution: Hainan (Wuzhi Mt., Limu Mt., Diaoluo Mt., Bawangling, Jianfengling, Danzhou, Baisha, Qiongzong, Tunchang, Dingan, Wenchang), Shanxi.

Specimens examined: 52 ♂ ♀, Wuzhi Mt., Hainan Is., Aug. 1995; 9 ♂ ♀, Wuzhi Mt., Hainan Is., May 1996; 18 ♂ ♀, Limu Mt., Hainan Is., Sept. 1995; 11 ♂ ♀, Limu Mt., Hainan Is., Apr. 1996; 35 ♂ ♀, Shijing, Diaoluo Mt., Hainan Is., Sept. 1995; 19 ♂ ♀, Diaoluo Mt., Hainan Is., Sept. 1995; 5 ♂ ♀, Diaoluo Mt., Hainan Is., May 1996; 4 ♂ ♀, Yajia, Bawangling, Hainan Is., Aug. 1995; 4 ♂ ♀, Bawangling, Hainan Is., Sept. 1995; 11 ♂ ♀, Bawangling, Hainan Is., Mar. 1996; 18 ♂ ♀, Tianchi, Jianfengling, Hainan Is., Sept. 1995; 2 ♂ ♀, Jianfengling, Hainan Is., Apr. 1996; 6 ♂ ♀, Shamaoling, Danzhou City, Hainan Is., Aug. 1 ♂, 1995; Nanfeng Town, Danzhou City, Hainan Is., Aug. 1995; 1 ♂, Nanfeng Town, Danzhou City, Hainan Is., Apr.

1996; 9 ♂ ♀, Danzhou Forestry Center, Danzhou City, Hainan Is., Apr. 1996; 25 ♂ ♀, Liangyuan, Danzhou City, Hainan Is., Aug. 1995; 22 ♂ ♀, Liangyuan, Danzhou City, Hainan Is., Apr. 1996; 5 ♂ ♀, Weixing Farm, Baisha Co., Hainan Is., Apr. 1996; 2 ♂ ♀, Nanfang Farm, Qiongzong Co., Hainan Is., Apr. 1996; 16 ♂ ♀, Maoyang Town, Qiongzong Co., Hainan Is., Sept. 1995; 4 ♂ ♀, Yangjiang Farm, Qiongzong Co., Hainan Is., Sept. 1995; 1 ♂, Yinggen Town, Qiongzong Co., Hainan Is., Aug. 1995; 9 ♂ ♀, Chenxing Farm, Tunchang Co., Hainan Is., Apr. 1996; 12 ♂ ♀, Zhongrui Farm, Dingan Co., Hainan Is., Apr. 1996; 1 ♂, Dongzhai Bay, Wenchang Co., Hainan Is., Sept. 1995.

14. *Brumoides hainanensis* Miyatake, 1970

Brumoides hainanensis Miyatake, 1970; Pang et Mao, 1979; Huang et Pang, 1991; Cao, 1992; Peng et al., 1997

Distribution: Hainan (Qiongzong), Guangdong, Guangxi, Yunnan.

Specimens examined: 1 ♂ 1 ♀, Maoyang Town, Qiongzong Co., Hainan Is., Sept. 1995.

15. *Chilocorus circumdatus* (Gyllenhal, 1808)

Coccinella circumdatus Gyllenhal, 1808

Chilocorus circumdatus: Bielawski, 1957; Liu, 1963; Miyatake, 1970; Canepari, 1986; Pang et Mao, 1979; Huang et Pang, 1991; Cao, 1992; Peng et al., 1997

Distribution: Hainan (Diaoluo Mt., Danzhou), Zhejiang, Fujian, Guangdong, Guangxi, Yunnan; Indonesia; India; Sri Lanka.

Specimens examined: 27 ♂ ♀, Diaoluo Mt., Hainan Is., July 1995; 1 ♂, Diaoluo Mt., Hainan Is., May 1996; 24 ♂ ♀, Nanfeng Town, Danzhou City, Hainan Is., Aug. 1995; 4 ♂ ♀, Liangyuan, Danzhou City, Hainan Is., Aug. 1995.

16. *Chilocorus gressitti* Miyatake, 1970

Chilocorus gressitti Miyatake, 1970; Liu, 1963; Pang et Mao, 1979; Huang et

Pang, 1991; Cao, 1992; Jing, 1992; Peng et al., 1997

Distribution: Hainan (Wuzhi Mt., Diaoluo Mt., Tongshi), Sichuan, Fujian, Guangdong, Guangxi, Yunnan; Burma; Thailand; India; Sri Lanka; Nepal; Indonesia.

Specimens examined: 1 ♀, Wuzhi Mt., Hainan Is., May 1996; 4 ♀ ♀, Diaoluo Mt., Hainan Is., July 1995; 3 ♀ ♀, Tongshi City, Hainan Is., Aug. 1995.

17. *Platynaspis hainanensis* (Miyatake, 1961)

Phymatosternus hainanensis Miyatake, 1961

Platynaspis hainanensis: Pang et Mao, 1979; Peng et al., 1997

Distribution: Hainan (Wuzhi Mt., Bawangling, Limu Mt., Jianfengling, Diaoluo Mt., Lingao, Danzhou, Qiongzong, Dingan), Guangxi.

Specimens examined: 2 ♂ ♂ 1 ♀, Wuzhi Mt., Hainan Is., Aug. 1995; 3 ♂ ♂ 1 ♀, Wuzhi Mt., Hainan Is., May 1996; 4 ♂ ♂ 3 ♀ ♀, Yajia, Bawangling, Hainan Is., Aug. 1995; 2 ♂ ♂, Bawangling, Hainan Is., Mar. 1996; 2 ♂ ♀, Limu Mt., Hainan Is., Sept. 1995; 2 ♂ ♂, Limu Mt., Hainan Is., Apr. 1996; 2 ♂ ♀, Shijing, Diaoluo Mt., Hainan Is., Sept. 1995; 1 ♀, Diaoluo Mt., Hainan Is., May 1996; 2 ♂ ♀, Tianchi, Jianfengling, Hainan Is., Sept. 1995; 1 ♂ 1 ♀, Honghua Farm, Lingao Co., Hainan Is., Apr. 1996; 3 ♂ ♂ 3 ♀ ♀, Nanfeng Town, Danzhou City, Hainan Is., Apr. 1996; 2 ♀ ♀, Liangyuan, Danzhou City, Hainan Is., Apr. 1996; 2 ♂ ♂ 3 ♀ ♀, Maoyang Town, Qiongzong Co., Hainan Is., May 1996; 4 ♂ ♂, Nanfeng Farm, Qiongzong Co., Hainan Is., Apr. 1996; 2 ♂ ♂ 2 ♀ ♀, Zhongrui Farm, Dingan Co., Hainan Is., Apr. 1996.

18. *Platynaspis maculosa* Weise, 1910

Platynaspis maculosa Weise, 1910; Miyatake, 1961; Pang et Mao, 1979; Huang et Pang, 1991; Yu et al., 1993; Peng et al., 1997

Distribution: Hainan (Wuzhi Mt., Bawangling, Jianfengling, Diaoluo Mt., Da-

nzhou, Qiongzong), Shanxi, Jiangsu, Sichuan, Fujian, Guangdong, Guangxi.

Specimens examined: 4 ♂♂ 3 ♀♀, Wuzhi Mt., Hainan Is., Aug. 1995; 1 ♂ 1 ♀, Wuzhi Mt., Hainan Is., May 1996; 1 ♀, Yajia, Bawangling, Hainan Is., Aug. 1995; 1 ♂ 2 ♀♀, Bawangling, Hainan Is., Sept. 1995; 1 ♂, Shijing, Diaoluo Mt., Hainan Is., Sept. 1995; 1 ♂, Liangyuan, Danzhou City, Hainan Is., Aug. 1995; 1 ♀, Tianchi, Jianfengling, Hainan Is., Sept. 1995; 2 ♂♂ ♀♀, Baihualing, Qiongzong Co., Hainan Is., Aug. 1995; 1 ♀, Maoyang Town, Qiongzong Co., Hainan Is., Sept. 1995; 1 ♂, Maoyang Town, Qiongzong Co., Hainan Is., May 1996.

References

- Hoang, D. N.** 1979. Ba Loai Bo Rua Moi Thuoc Phan Ho Scymninae (Coccinellidae) O Viet Nam. Tap Chi Sinh Vat Hoc 1(2): 11-15. (in Vietnamese).
- Pang, X. F.** 1966. New species of *Stethorus* (Coleoptera: Coccinellidae) from Canton, China. Acta Zootax. Sin. 3 (1): 76-81.
- Pang, X. F., and R. D. Gordon.** 1986. The Scymnini (Coleoptera: Coccinellidae) of China. The Coleopterists Bull., Washington 40(2): 157-199.
- Pang, X. F., and B. K. Huang.** 1986. Six new species of *Scymnus* and four new species of *Pseudoscymnus* from Fujian (Coleoptera: Coccinellidae). Wuyi Sci. J., China 6: 61-73.
- Pang, X. F., and J. L. Mao.** 1979. Coleoptera: Coccinellidae. II. Beijing 170 pp.
- Pang, X. F., and G. Y. Yu.** 1991. Emendations of the Scymnini (Coleoptera: Coccinellidae) of China. Coccinella, Germany 3(1): 5.
- Peng, Z. Q., H. Pang, S. X. Ren, and Q. A. Jin.** 1997. A check list of ladybeetle from Hainan Island. Nat. Enemies of Insects, China 19(3): 103-129.
- Pu, T. S.** 1990. *Stethorus* (*Allotstethorus*) *vietnamicus* Hoang - new record from China. Entomotaxonomia, China 12 (1): 112.
- Ren, S. X., and X. F. Pang.** 1996. The genus *Stethorus* Weise (Coleoptera: Coccinellidae) of China. Elytra, Tokyo 24 (2): 317-329.
- Sasaji, H.** 1967. A revision of the Formosan Coccinellidae (I), the subfamily Sticholotinae, with an establishment of a new tribe (Coleoptera). Etizenia, Fukui 25: 1-28.
- Sasaji, H.** 1971. The Fauna of Japonica Coccinellidae (Insecta: Coleoptera). Tokyo 340 pp.
- Yang, C. T., and R. H. Wu.** 1972. Notes on some Coccinellidae of Taiwan. J. Agric. For., Taichung 21: 115-118.
- Yu, G. Y., H. Pang, and X. F. Pang.** 1993. Coccinellidae collected from Chebaling National Nature Reserve. pp.476-611. In Y. Q. Xu, ed. Proceedings of the research on Chebaling National Nature Reserve. Guangzhou.

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海南島檳榔園捕食性天敵瓢蟲(鞘翅目：瓢蟲科)

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摘 要

本文記述海南島檳榔園捕食性天敵瓢蟲 10 屬 18 種：臺毛艷瓢蟲 *Pharoscymnus taii* Sasaji，擬小食蚜瓢蟲 *Stethorus (Allostethorus) parapauperculus* Pang，越南食蚜瓢蟲 *Stethorus (Allostethorus) vietnamicus* Hoang，無花果斧瓢蟲 *Axinoscymnus beneficus* Kamiya，腹毛陡胸瓢蟲 *Clitostethus sternalis* (Pang et Gordon)，臺灣凱瓢蟲 *Keiscymnus taiwanensis* Yang et Wu，雙囊小瓢蟲 *Scymnus (Pullus) dicorycus* Pang et Huang，凱氏小瓢蟲 *Scymnus (Pullus) koebeli* (Pang et Gordon)，臺灣小瓢蟲 *Scymnus (Pullus) taiwanus* (Ohta)，長管小瓢蟲 *Scymnus (Pullus) tenuis* Yang，內囊小瓢蟲 *Scymnus (Pullus) yangi* Yu et Pang，廣東隱勢瓢蟲 *Cryptogonus guangdongiensis* Pang et Mao，五指山隱勢瓢蟲 *Cryptogonus wuzhishanus* Pang et Mao，海南縱條瓢蟲 *Brumoides hainanensis* Miyatake，細緣唇瓢蟲 *Chilocorus circumdatus* (Gyllenhal)，黑背唇瓢蟲 *Chilocorus gressitti* Miyatake，海南廣盾瓢蟲 *Platynaspis hainanensis* (Miyatake)，四斑廣盾瓢蟲 *Platynaspis maculosa* Weise。

關鍵詞：瓢蟲科、檳榔、海南島。