

## APPENDIX

### Terminology

‘**Gynodioecious**’ is referred to the fig species with male and female trees in the population. Male trees (caprifigs) bear ‘male’ syconia containing pollen-bearing male flowers and short –style female flowers. The ovaries of short style female flowers often contain a male or female wasp larva if eggs were deposited inside them. Female tree only bear female flowers syconia containing seed bearing long style female flowers and no male flowers. About half the world’s 1000+ fig species are gynodioecious, short-style and long style female flowers in the same syconium. (Armstrong and Disparti, 1998)

‘**Pollen basket**’ pollen collecting device: A special-adapted collective cavity or bristles on female wasp where pollen is purposively deposited before leaving the male (caprifig) syconium. (Armstrong and Disparti, 1998)

‘**Keystone**’ defined a keystone species as “one whose impact on its community or ecosystem is large and disproportionately large relative to its abundance” (Power, 1966 in Shanahan *et al.*, 2001)

‘**Foundress**’ is the female pollinator with pollen carrying

‘**Bladders**’ are the developed gall flowers without wasps that caused by the premature death of wasp eggs or larvae (Gailil & Eisikowitch, 1971)

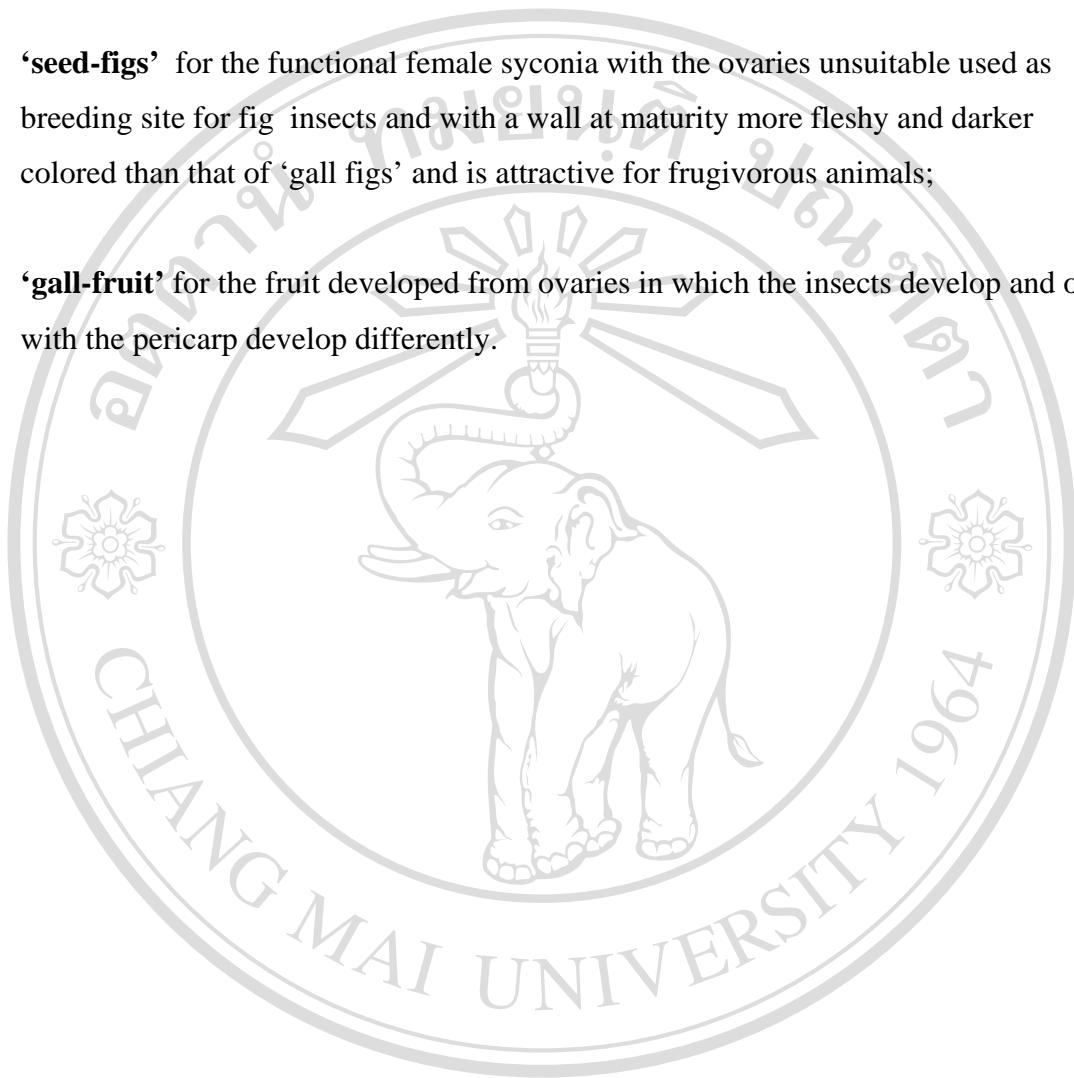
### Terminology of fig (Berg and Corner, 2005)

‘**gall-figs**’ for the functionally male syconia with the ovaries only used breeding sites for fig insects and with a wall at maturity often less fleshy and usually color different

from the 'seed figs', remaining green or with paler colors, generally less attractive to frugivorous animals;

'seed-figs' for the functional female syconia with the ovaries unsuitable used as breeding site for fig insects and with a wall at maturity more fleshy and darker colored than that of 'gall figs' and is attractive for frugivorous animals;

'gall-fruit' for the fruit developed from ovaries in which the insects develop and of with the pericarp develop differently.



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### Climatology of Chiang Mai between 2006 and 2007

| month/<br>2006 | temperature |       |       |         | humidity<br>(%RH) |       | rain   |
|----------------|-------------|-------|-------|---------|-------------------|-------|--------|
|                |             | max   | min   | average | max               | min   |        |
| January        | 30.14       | 14.76 | 21.21 | 97.23   | 44.06             | 75.10 | 0.00   |
| February       | 32.88       | 17.46 | 24.68 | 90.80   | 38.40             | 64.70 | 0.00   |
| March          | 36.21       | 19.91 | 27.75 | 81.30   | 33.70             | 56.30 | 18.00  |
| April          | 36.72       | 21.89 | 28.43 | 88.40   | 44.00             | 67.30 | 206.70 |
| May            | 33.42       | 21.74 | 26.53 | 96.10   | 62.30             | 81.70 | 219.50 |
| June           | 34.05       | 23.20 | 27.62 | 97.10   | 63.00             | 83.20 | 180.40 |
| July           | 30.63       | 23.60 | 26.37 | 97.60   | 74.30             | 88.00 | 269.30 |
| August         | 30.68       | 23.39 | 26.05 | 98.60   | 75.00             | 90.60 | 341.40 |
| September      | 32.17       | 23.38 | 26.70 | 98.00   | 64.40             | 85.80 | 194.80 |
| October        | 31.61       | 21.97 | 25.84 | 98.40   | 62.50             | 84.90 | 69.90  |
| November       | 31.57       | 18.19 | 24.00 | 98.10   | 50.30             | 77.90 | 0.00   |
| December       | 29.10       | 16.10 | 21.89 | 95.40   | 46.50             | 73.20 | 0.00   |
| January        | 29.75       | 14.49 | 22.10 | 94.10   | 40.90             | 70.20 | 0.00   |
| February       | 32.35       | 15.53 | 23.40 | 85.90   | 33.70             | 59.10 | 0.00   |
| March          | 35.75       | 18.37 | 26.57 | 74.80   | 29.10             | 51.50 | 0.00   |
| April          | 36.66       | 23.31 | 29.62 | 79.00   | 38.20             | 58.00 | 56.00  |
| May            | 31.48       | 23.29 | 26.52 | 95.80   | 67.00             | 84.80 | 393.50 |
| June           | 33.08       | 24.26 | 27.85 | 95.40   | 62.50             | 81.70 | 130.10 |
| July           | 31.45       | 24.07 | 27.04 | 95.20   | 65.20             | 82.60 | 74.60  |
| mean           | 32.62       | 20.47 | 25.80 | 92.49   | 52.37             | 74.56 | 113.38 |

## Curriculum Vitae

**Name**

Mrs. Yaowanit Tarachai

**Date of Birth**

February 23, 1969

**Education Background**

1990

Bachelor of Science (Agriculture), Khon Khaen University

Department of Entomology, Faculty of Agriculture

1996

Master of Science (Biology), Chiang Mai University

Department of Biology, Chiang Mai University

**Scholarships**

The Commission on Higher Education of Thailand and Maejo University

Graduate School of Chiang Mai University, Chiang Mai, Thailand

The TRF/BIOTEC Special Program for Biodiversity Research and Training grant

**Experience**

1997-present Lecturer,

Faculty of Architecture and Environmental Design, Maejo University, Chiang Mai

**Publications**

1. Tarachai, Y., Compton, S.G. and Trisonthi, C. 2006. *Functional relationships between a fig tree and its pollinators*. Proceeding of the 7<sup>th</sup> International Symposium on fig-fig wasp biology, 23-26 July 2006, Xishuangbanna, China.

2. Tarachai, Y., Sukumalanand, P., Wangpakapattanawong, P., Compton, S.G. and Trisonthi, C. 2007. *Taxonomy of some figs and their pollinators*. The 11<sup>th</sup> BRT Annual Conference, 15-18 October 2007, Napalai, Udonthani.
3. Tarachai, Y., Compton, S.G. and Trisonthi, C. 2008. The benefits of pollination for a fig wasp. *Symbiosis*, 45: 29-32.
4. Tarachai, Y., Sukumalanand, P., Wangpakapattanawong, P., Compton, S.G. and Trisonthi, C. 2008. *Co-evolution of Ficus racemosa L. and its pollinator*. Proceedings of the 10<sup>th</sup> year anniversary Mae Fah Luang conference, 26-28 November 2008, Mae Fah Luang University, Chiangrai.