Suci Dian Hayati, Ibnul Qayim, Rika Raffiudin, and Miftahudin Miftahudin. Variety of plants and nest site preference: Traditional knowledge of *sunggau* for attracting *Apis dorsata* in Indonesia. Ecosphere.

**Appendix S3. Table S1.** Quantitative data of *sunggau* in three study area and various plant species used as main plank, front and back poles.

| **Code** | **Village** | **Species used as *sunggau*** | **The number of colonies occupied** | **Main plank** | | | **Height of** | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Length (m)** | **Incline of main plank** | **Diameter (m)** | **The front pole (m)** | **The back pole (m)** |
| KMB\_5 | Kembiri | *Pao* | 1 | 4 | 20 | 0.35 | 2.65 | 1.9 |
| KMB\_9 | Kembiri | *samak* | 2 | 3.64 | 18 | 0.38 | 2.2 | 1.54 |
| KMB\_8 | Kembiri | *Gerunggang* | 1 | 2.5 | 25 | 0.32 | 2 | 1.5 |
| KMB\_9 | Kembiri | *samak* | 2 | 3.64 | 18 | 0.38 | 2.2 | 1.54 |
| KMB\_3 | Kembiri | *Medang* | 0 | 1.34 | 22 | 0.3 | 2.6 | 1.65 |
| KMB\_4 | Kembiri | *Pelangas* | 0 | 1.55 | 18 | 0.35 | 1.5 | 1.2 |
| KMB\_6 | Kembiri | *Gerunggang* | 0 | 3 | 20 | 0.44 | 2.03 | 0.96 |
| KMB\_10 | Kembiri | *Teruntum* | 0 | 3.5 | 18 | 0.31 | 2.4 | 1.83 |
| KMB\_14 | Kembiri | *Pelangas* | 0 | 3.9 | 23 | 0.36 | 1.64 | 0.9 |
| KMB\_15 | Kembiri | *mensirak* | 0 | 3.2 | 14 | 0.36 | 1.95 | 1.46 |
| KMB\_16 | Kembiri | *Melukan* | 0 | 4 | 36 | 0.35 | 2 | 1.19 |
| KMB\_17 | Kembiri | *Melukan* | 0 | 3 | 29 | 0.3 | 4.2 | 3 |
| KMB\_18 | Kembiri | *Gerunggang* | 0 | 3.5 | 29.7 | 0.32 | 1.5 | 1 |
| KMB\_19 | Kembiri | *Malong* | 0 | 3 | 29.9 | 0.25 | 2 | 1.65 |
| KMB\_20 | Kembiri | *Melak* | 0 | 3 | 20.4 | 0.34 | 4 | 3 |
| PP\_32 | Perpat | *Gerunggang* | 3 | 3 | 32 | 0.3 | 2.5 | 1.5 |
| PP\_1 | Perpat | *samak* | 15 | 3 | 17 | 0.3 | 3 | 2 |
| PP\_43 | Perpat | *Punyok* | 1 | 3.66 | 27.2 | 0.27 | 1.86 | 1.43 |
| PP\_13 | Perpat | *Medang* | 2 | 3 | 20 | 0.2 | 1.2 | 1 |
| PP\_38 | Perpat | *Sapat* | 1 | 3.4 | 24 | 0.3 | 8 | 6 |
| PP\_33 | Perpat | *Betor* | 2 | 3.04 | 25 | 0.35 | 2.15 | 1.25 |
| PP\_28 | Perpat | *Medang* | 1 | 3.78 | 26.6 | 0.3 | 1.86 | 1.15 |
| PP\_27 | Perpat | *Betor* | 1 | 2.46 | 26.6 | 0.31 | 2 | 1.2 |
| PP\_60 | Perpat | *Gerunggang* | 3 | 2.86 | 22.7 | 0.25 | 1.53 | 1.12 |
| PP\_30 | Perpat | *samak* | 1 | 3 | 32 | 0.3 | 2.5 | 1.5 |
| PP\_47 | Perpat | *Punyok* | 1 | 2.7 | 24 | 0.25 | 5 | 4 |
| PP\_26 | Perpat | *Betor* | 1 | 3.8 | 15.5 | 0.33 | 1.7 | 0.9 |
| PP\_61 | Perpat | *Teruntum* | 0 | 3.5 | 20.8 | 0.4 | 2.1 | 1.44 |
| PP\_62 | Perpat | *Punyok* | 0 | 3.02 | 21.7 | 0.32 | 1.95 | 1.15 |
| PP\_63 | Perpat | *Teruntum* | 0 | 3.13 | 21.8 | 0.31 | 1.73 | 1.1 |
| PP\_64 | Perpat | *Gerunggang* | 0 | 3 | 32 | 0.3 | 2.5 | 1.5 |
| PP\_37 | Perpat | *Gerunggang* | 0 | 3 | 22.8 | 0.3 | 2.5 | 1.5 |
| PP\_35 | Perpat | *Gerunggang* | 0 | 3.36 | 20.9 | 0.39 | 2 | 1.39 |
| PP\_42 | Perpat | *Sapat* | 1 | 3 | 31 | 0.25 | 2 | 1.2 |
| PP\_47a | Perpat | *Punyok* | 0 | 3.32 | 27.3 | 0.25 | 2.24 | 1.6 |
| PP\_44 | Perpat | *Gelam* | 0 | 3.76 | 17 | 0.34 | 1.62 | 1.02 |
| PP\_46 | Perpat | *Betor* | 0 | 2.78 | 34 | 0.28 | 1.7 | 0.87 |
| PP\_47b | Perpat | *Punyok* | 1 | 3.66 | 27.2 | 0.27 | 1.86 | 1.43 |
| PP\_45 | Perpat | *Punyok* | 1 | 2.7 | 24 | 0.25 | 5 | 4 |
| KMP\_9 | Tanjung Rusa | *samak* | 1 | 2.5 | 20 | 0.29 | 1.7 | 1 |
| KMP\_8 | Tanjung Rusa | *samak* | 1 | 2.5 | 25 | 0.32 | 2 | 1.5 |
| TJ\_7a | Tanjung Rusa | *Pelangas* | 4 | 3.5 | 20 | 0.36 | 7 | 6 |
| TJ\_7b | Tanjung Rusa | *Pelangas* | 4 | 3.5 | 22 | 0.36 | 7 | 6 |
| TJ\_15 | Tanjung Rusa | *samak* | 2 | 3 | 24.4 | 0.4 | 2.4 | 1.65 |
| TJ\_14 | Tanjung Rusa | *Betor* | 2 | 3.7 | 17.9 | 0.4 | 2.2 | 1.7 |
| TJ\_11 | Tanjung Rusa | *mensirak* | 1 | 3.5 | 38 | 0.3 | 2.9 | 1.8 |
| TJ\_4 | Tanjung Rusa | *Medang* | 2 | 3.55 | 19 | 0.36 | 2.5 | 1.4 |
| TJ\_3 | Tanjung Rusa | *Mengkiker* | 1 | 3.7 | 19.8 | 0.43 | 1.5 | 0.95 |
| KMP\_2 | Tanjung Rusa | *Betor* | 0 | 1.94 | 23.8 | 0.305 | 1.9 | 1.27 |
| KMP\_3 | Tanjung Rusa | *Gerunggang* | 0 | 2.56 | 18.1 | 0.29 | 2.14 | 1.38 |
| KMP\_5 | Tanjung Rusa | *samak* | 0 | 1.97 | 13.5 | 0.4 | 1.63 | 1.22 |
| KMP\_6 | Tanjung Rusa | *samak* | 0 | 1.93 | 18.8 | 0.4 | 1.86 | 1.37 |
| KMP\_8 | Tanjung Rusa | *samak* | 1 | 2.5 | 25 | 0.32 | 2 | 1.5 |
| KMP\_9 | Tanjung Rusa | *samak* | 1 | 2.5 | 20 | 0.29 | 1.7 | 1 |
| **Average =**  **Stdev =** | | | | **3.07** | **23.32** | **0.32** | **2.51** | **1.77** |
| **0.61** | **5.52** | **0.05** | **1.41** | **1.22** |

**Table S2.** Plant species for *sunggau* plank favoured by bee farmers in the three studied area

| **No** | **Family** | **Scientific name** | **Local name** | **Preferred by bee farmers at** |
| --- | --- | --- | --- | --- |
| 1 | Anacardiaceae | *Buchanania arborescens* | *Pao* | 2,3 |
| 2 | Apocynaceae | *Cerbera manghas* L | *Emperuak* | 2 |
| 3 | Aquifoliaceae | *Ilex cymosa* | *Mensirak* | 2, 3 |
| 4 | Asteraceae | *Vernonia arborea* | *Mentepong* | 2 |
| 5 | Calophyllaceae | *Calophyllum lanigerum* | *Betor belulang* | 1, 2, 3 |
| 6 | Calophyllaceae | *Calophyllum soulattri* | *Betor berubuk* | 1, 2, 3 |
| 7 | Calophyllaceae | *Calophyllum pulcherrimum* | *Betor padi* | 1, 2, 3 |
| 8 | Calophyllaceae | Calophyllum saigonense | *Betor rambai* | 2 |
| 9 | Calophyllaceae | *Calophyllum soulattri* | *Malong* | 2 |
| 10 | Combretaceae | *Lumnitzera littorea* | *Teruntum merah* | 1,3 |
| 11 | Combretaceae | *Lumnitzera racemosa* | *Teruntum putih* | 1 |
| 12 | Dipterocarpaceae | *Shorea balangeran* | *Belangeran* | 1,2 |
| 13 | Dipterocarpaceae | *Hopea bilitonensis* | *Pelepak* | 2 |
| 14 | Fagaceae | *Lithocarpus sundaicus* | *Berangan dangkal* | 2 |
| 15 | Fagaceae | *[Castanopsis javanica](https://species.wikimedia.org/wiki/Castanopsis_javanica" \o "https://species.wikimedia.org/wiki/Castanopsis_javanica)* | *Berangan duri* | 2 |
| 16 | Fagaceae | *Lithocarpus bancanus* | *Seruk* | 2 |
| 17 | Hypericaceae | *Cratoxylum glaucum* | *Gerunggang* | 1, 2, 3 |
| 18 | Lamiaceae | *Vitex pubescens* | *Tuek* | 2 |
| 19 | Myrtaceae | *Rhodamnia cinerea* | *Jemang* | 1, 2, 3 |
| 20 | Lauraceae | *Cryptocarya densiflora* | *Medang beliling* | 1, 2, 3 |
| 21 | Lauraceae | *Lindera lucida* | *Medang miang* | 1, 2, 3 |
| 22 | Lauraceae | *Litsea accedens* | *Medang perawas* | 1,2 |
| 23 | Malvaceae | *Pterospermum javanicum* | *Nyire* | 2 |
| 24 | Myrtaceae | *Tristaniopsis obovata* | *Pelawan* | 1, 2, 3 |
| 25 | Myrtaceae | *Syzygium urceolatum* | *Samak* | 1, 2, 3 |
| 26 | Myrtaceae | *Syzygium muelleri* | *Ubar* | 1 |
| 27 | Myrtaceae | *Melaleuca cajuputi* | *Gelam* | 1 |
| 28 | Myrtaceae | *Syzygium cf. Calophyllifolium* | *Arang-arang* | 3 |
| 29 | Myrtaceae | *Syzygium racemosum* | *Mantuyan* | 3 |
| 30 | Myrtaceae | *Baeckea frutescens* | *Sapu-sapu* | 3 |
| 31 | Phyllanthaceae | *Aporosa frutescens* | *Pelangas* | 1, 2, 3 |
| 32 | Podocarpaceae | *Podocarpus neriifoliius* | *Punyok* | 1,2 |
| 33 | proteaceae | *Helicia robusta* | *Mengkiker* | 3 |
| 34 | Rhizoporaeae | *Bruguiera sexangula* | *Tumok* | 2 |
| 35 | Rutaceae | *Melicope denhamii* | *Sengulang* | 2 |
| 36 | Sapindaceae | *Guioa diplopetala* | *Pulas* | 1, 2, 3 |
| 37 | Sapotaceae | *Planchonella obovata* | *Serkek* | 2 |

Note: 1 = Perpat; 2 = Kembiri; 3 = Tanjung Rusa

**Table S3.** Index cultural significant value of plant species used in *sunggau* tradition in the three studied area.

| **No** | **Family** | **Scientific Name** | **Local name** | **Total of uses** | **Total of ICS** |
| --- | --- | --- | --- | --- | --- |
|
|  | Myrtaceae | *Syzygium urceolatum* | Samak | 4 | 80 |
|  | Calophyllaceae | *Calophyllum pulcherrimum* | Betor padi | 5 | 68 |
|  | Calophyllaceae | *Calophyllum lanigerum* | Betor belulang | 4 | 62 |
|  | Hypericaceae | *Cratoxylum glaucum* | Gerunggang | 3 | 52 |
|  | Myrtaceae | *Eugenia foxworthiana* | Asau | 3 | 48 |
|  | Myrtaceae | *Melaleuca cajuputi* | Gelam | 4 | 45 |
|  | Theaceae | *Schima wallichii* | Seruk | 4 | 42 |
|  | Lauraceae | *Cryptocarya densiflora* | Medang beliling | 2 | 40 |
|  | Fagaceae | *Lithocarpus sundaicus* | Berangan dangkal | 2 | 37 |
|  | Anacardiaceae | *Buchanania arborescens* | Pao | 3 | 36 |
|  | Combretaceae | *Lumnitzera littorea* | Teruntum merah | 2 | 36 |
|  | Dipterocarpaceae | *Hopea bilitonensis* | Pelepak | 5 | 34 |
|  | Zingeberaceae | *Curcuma longa* | Kunyit | 3 | 27 |
|  | pipereaceae | *Piper* sp. | Sirih | 2 | 25 |
|  | Calophyllaceae | *Calophyllum soulattri* | Betor berubok | 1 | 24 |
|  | Lauraceae | *Litsea accedens* | Medang perawas | 2 | 24 |
|  | Proteacea | *Helicia robusta* | Mengkiker | 2 | 24 |
|  | Symplocaceae | *Symplocos adenophylla* | Mendiramen | 3 | 24 |
|  | Thymelaeaceae | *Aquilaria malaccensis* | Gaharu | 2 | 24 |
|  | Rutaceae | *Melicope denhamii* | Sengulang | 3 | 22 |
|  | Calophyllaceae | *Calophyllum soulattri* | Malong | 3 | 21 |
|  | Sapindaceae | *Guioa diplopetala* | Pulas | 3 | 21 |
|  | Combretaceae | *Lumnitzera racemosa* | Teruntum putih | 2 | 20 |
|  | Myrtaceae | *Syzygium cymosum* | Mengkeling | 2 | 20 |
|  | Myrtaceae | *Baeckea frutescens* | Sapu-sapu | 3 | 19 |
|  | Myrtaceae | *Syzygium bankense* | Sudong pelanduk | 3 | 19 |
|  | Dipterocarpaceae | *Shorea balangeran* | Balangeran | 3 | 18 |
|  | Lauraceae | *Lindera lucida* | Medang miang | 2 | 18 |
|  | Euphorbiaceae | *Mallotus barbatus* | Balik angin | 3 | 17 |
|  | Myrtaceae | *Tristaniopsis obovata* | Pelawan kiring | 5 | 17 |
|  | Aquifoliaceae | *Ilex cymosa* | Mensirak | 3 | 16 |
|  | Myrtaceae | *Syzygium acuminatissima* | Cingkang | 2 | 16 |
|  | Myrtaceae | *Syzygium acuminatissima* | Sapat | 2 | 16 |
|  | Primulaceae | *Ardisia haseltii* | Ubi-ubi | 2 | 16 |
|  | Sapotaceae | *Planchonella obovata* | Serkek | 1 | 16 |
|  | Myrtaceae | *Leptospermum polygalifolium* | Sekuncong | 3 | 15 |
|  | Myrtaceae | *Syzygium zeylanicum* | Betek/Nasi-nasi | 2 | 14 |
|  | Hypericaceae | *Cratoxylum formosum* | Mampat | 2 | 14 |
|  | Myrtaceae | *Syzygium muelleri* | Ubar | 3 | 13 |
|  | Clusiaceae | *Garcinia sp* | Kandis | 2 | 13 |
|  | Fagaceae | *Lithocarpus blumeanus* | Kabal | 2 | 12 |
|  | Myrtaceae | *Decaspermum parviflorum* | Sisel | 2 | 12 |
|  | Pentaphylantaceae | *Eurya acuminata* | Salah | 3 | 12 |
|  | Phyllanthaceae | *Aporosa frutescens* | Pelangas | 1 | 12 |
|  | Podocarpaceae | *Podocarpus neriifoliius* | Punyuk | 1 | 12 |
|  | Arecaceae | *Areca catechu* | Pinang | 1 | 12 |
|  | Myrtaceae | *Syzygium racemosum* | Mantuyan | 2 | 11 |
|  | Rubiaceae | *Coptosapelta tomentosa* | Akar gendai | 2 | 11 |
|  | Clusiaceae | *Garcinia bancana* Miq. | Melak | 3 | 10 |
|  | Fabaceae | *Adenanthera pavonina* | Saga | 2 | 10 |
|  | Myrtaceae | *Rhodamnia cinerea* | Jemang | 3 | 9 |
|  | Rhizoporaceae | *Bruguiera sexangula* | Tumok | 1 | 9 |
|  | Apocynaceae | *Cerbera manghas* | Emperuak | 1 | 8 |
|  | Lamiaceae | *Vitex pubescens* | Tuek | 1 | 8 |
|  | Malvaceae | *Pterospermum javanicum* | Nyire | 1 | 8 |
|  | Myristicaceae | *Knea cinerea* | Naran | 2 | 8 |
|  | Myrtaceae | *Syzygium palembanicum* | Melukan | 1 | 8 |
|  | Myrtaceae | *Rhodomyrtus tomentosa* | Keremunting | 1 | 8 |
|  | Anacardiaceae | *Bouea macrophylla* | Urisan | 1 | 8 |
|  | Melastomataceae | *Melastoma malabathricum* | Keletakan/peletak | 2 | 7.5 |
|  | Lecythidaceae | *Barringtonia reticulata* | Putat | 2 | 7 |
|  | Ericaceae | *Styphellia malayana* | Alu-alu | 2 | 5 |
|  | Malvaceae | *Commersonia bartramia* | Mentenuk | 2 | 4.5 |
|  | Calophyllaceae | Calophyllum saigonense | Betor rambai | 1 | 4 |
|  | Myrtaceae | *Syzygium cf. Calophyllifolium* | Arang-arang batang | 1 | 4 |
|  | Pentaphylantaceae | *Adinandra dumosa* | Pelempang hitam | 1 | 4 |
|  | Pentaphylantaceae | *Eurya glabra* | Pelempang putih | 1 | 4 |
|  | Rubiaceae | *Psychotria malayana* | Tenam | 1 | 4 |
|  | Dilleniaceae | *Dillenia suffruticosa* | Simpor bini | 2 | 3.5 |
|  | Thymelaeaceae | *Wikstroemia androsaemifolium* | Bentak | 1 | 3 |
|  | Fabaceae | *Spatholobus ferrugineus* | Berebat | 1 | 3 |
|  | Araliaceae | *Arthrophyllum javanicum* | Juluk antu | 1 | 2 |
|  | Asteraceae | *Vernonia arborea* | Mentepong | 1 | 2 |
|  | Zingeberaceae | *Alpinia aquatic* | Lepang | 1 | 2 |
|  | Musaceae | *Musa* sp*.* | Pisang | 1 | 2 |
|  | Annonaceae | *Neouvaria acuminatissima* | Rarak | 1 | 2 |