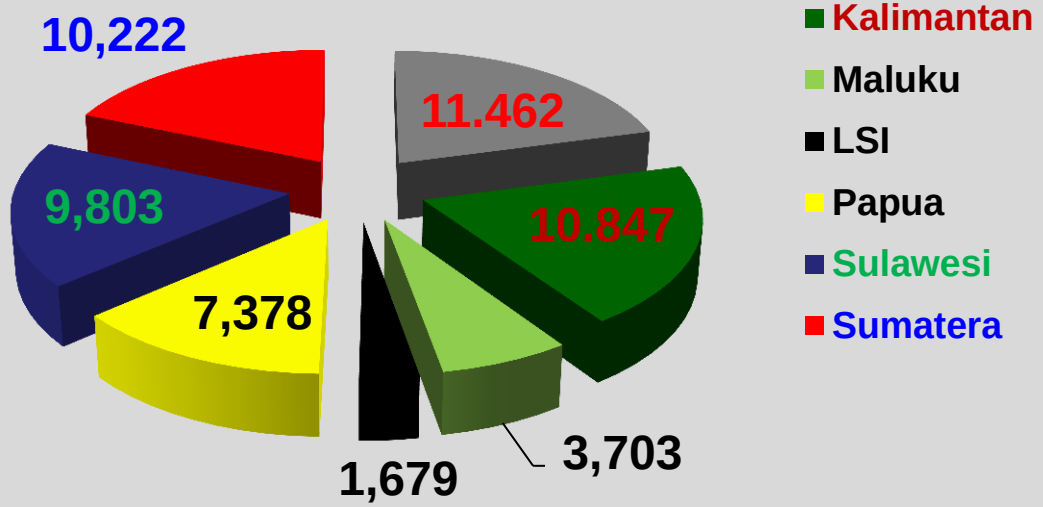
PROPOSAL

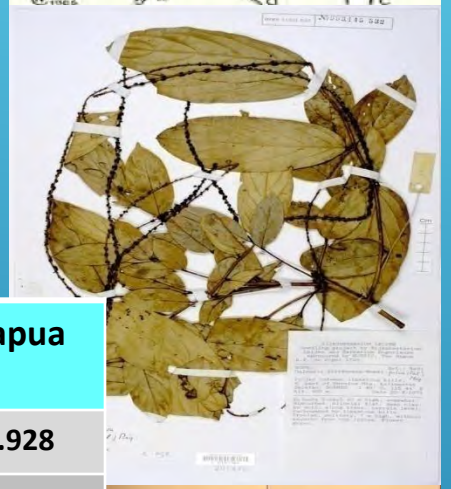
LINKING BIOLOGY BASED RESEARCH INSTITUTION TO APPLIED BASED RESEARCH INSTITUTION THROUGH BIOSYNTHETIC APPROACH

World : 258.650 species;

Indonesia : 35.000-40.000 species



The number flora species in the main islands

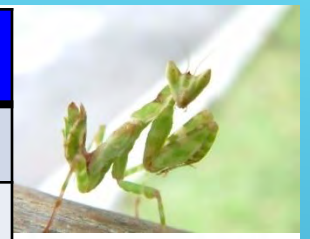


TAXON	Sumatra	Kalimantan	Java	Sulawesi	Nusa tenggara	Maluku	Papua
FLORA	5.692	5.575	6.641	6.796	490	2.279	3.928
LICHENS	151	71	444	108	24	58	51
MUSCI	268	376	610	202	205	224	??
Hepaticae(	164	235	497	31	14	16	66
Algae	12	4	84	13	12	15	6
Fungi	477	374	2.131	244	28	??	482

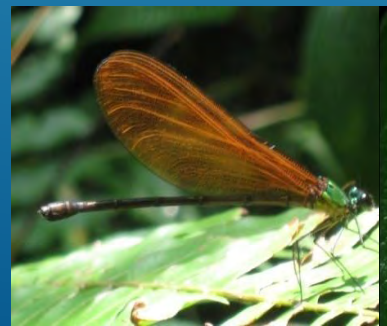
INSECTS

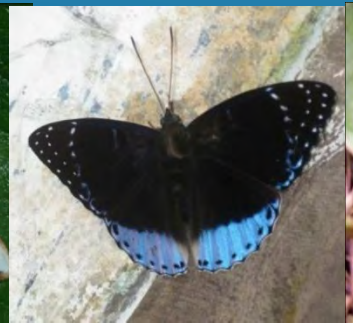
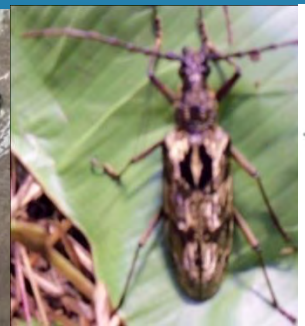
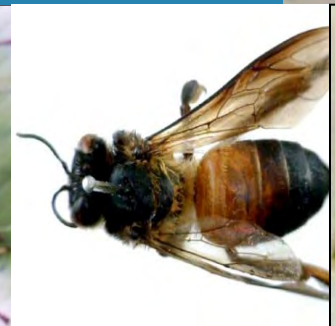
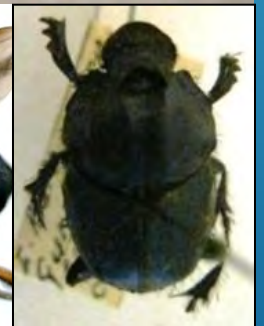
Ordo	world	Indonesia
Collembola	6.000	900 - 1200
Odonata	5.000	77
Ephemeroptera	250	40
Orthoptera	20.000	3.000
Blattodea	4.000	600
Isoptera	2.500	225
Mantodea	1.800	200
Phasmatodea	25.000	3.750
Dermaptera	1.800	400
Plecoptera	2.000	300

Ordo	World	Indonesia
Hemiptera	25.000	3.750
Thysanoptera	4.500	675
Psocoptera	4.500	450
Neuroptera	5.000	750
Diptera	150.000	22.500
Tricoptera	7.000	1.050
Lepidoptera	150.000	22.500
Coleoptera	300.000	45.000
Hymenoptera	300.000	45.000
	1.014.350	151.847







REPTILES

Indonesian : 723 spesies in 28 families (4 orders)

	Sum	Jav	Kal	Sul	NT	Mal	Pap
∑ Species	224	154	227	130	74	80	208
∑ Sp Endemic	52	10	12	44	39	40	34
Endemisitas (%)	23.21	6.49	5.29	33.85	52.27	50	16.35

There are about 40% of the worlds Varanus occurs in Indonesia, which is 80% distributed in Eastern part of Indonesia Papua and Molluca

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ARTICLE OPEN

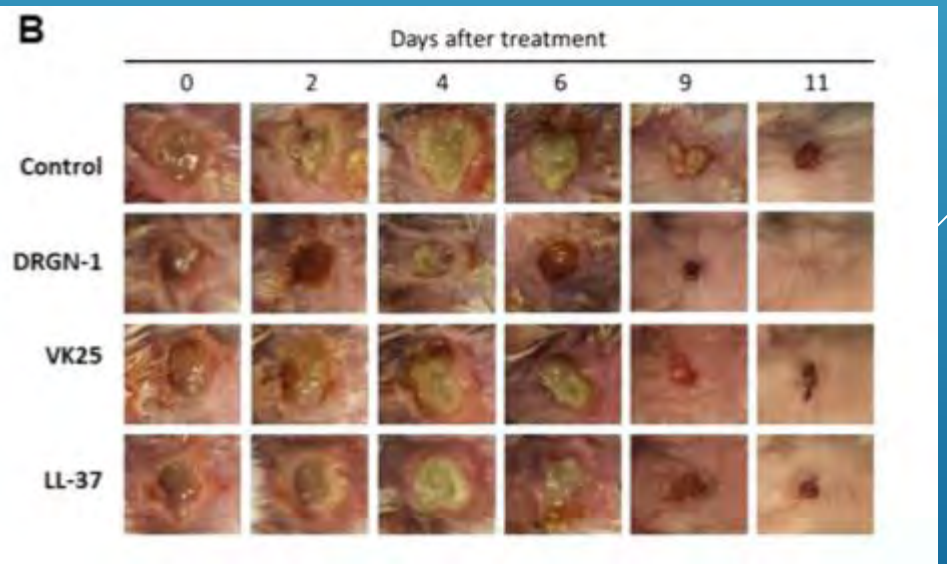
Komodo dragon-inspired synthetic peptide DRGN-1 promotes wound-healing of a mixed-biofilm infected wound

BIOSYNTHETIC PROCESS

COMPETING INTEREST

The authors declare that they have no competing interests. We are currently filing a patent on DRGN-1 peptide ("Antimicrobial peptides with wound healing activity").

These results not only contribute to our understanding of venom evolution but also reveal anguimorph lizard venoms to be rich sources of novel bioactive molecules with potential as drug design and development lead compounds.



BIOSYNTHETIC PROCESS

- ✓ New fast growing science & technology, particularly for drug industry
- ✓ Design to mimic the natural compounds
- ✓ Becoming **New Emerging Issues** in COP/SBSTTA
- ✓ Agresif in getting original new compounds from wild flora & fauna ➔ tropical regions
- ✓ To make a cheaper product or to produce faster.
- ✓ Synthetic drugs may be risky, because it can be produced anywhere

DEVELOPING COUNTRIES SHOULD AWARE FROM THE EARLIEST STAGE

PROBLEMS

The level of knowledge & technology on Biosynthesis is unknown for some tropical countries

Utilization of tropical origin resources through biosynthetic approach are growing fast

Established regulations & laboratory are not available

Lack of sufficients laboratory facilities &s experts

OBJECTIVE

To understand the current level of Biosythetic science and its application to the industry

To understand the link & connection among CBD Protocols related to utilization of biodiversity to Biosynthtic technology

To developed or adapt regulations on implementations of biosynthetic in scientific collaboration & industry implementation

Technical support in establishing the research laboratory

Technical support in implementation of Biosynthetic in research

REQUEST ASSISSTANCE

ASEAN countries
Developing Countries

PROSPECTIVE COUNTERPART

BBI to find

SPECIFIC NEEDS

A. WHAT IS BIOSYNTHETIC & HOW IT WORKS
B. WHAT THE MINIMUM REQUIREMENTS FOR SETTIG UP LABORATORY
C. EXAMPLE & EXERCISE IN DOING BIOSYNTHETIC PROCESS
D. GAPS IN REGULATIONS FOR COLLABORATIVE & IMPLEMENTATIONS IN INDUSTRY
E. VISITING & DISCUSSION WITH THE INDUSTRY

PARTICIPANTS

A. PHD LEVEL (MSC,)
B. MEDICAL, BIOCHEMIST, PHYTOCHEMIST, MOLECULAR ZOOLOGIST/BOTANIST,

OUTCOME

STIMULATING THE DEVELOPMENT OF BIOSYNTHETIC LABORATORY & INDUSTRY

THANK YOU…….