住友林業

Global Timberlization Movement and Expectation on Durable Eucalyptus

Sumitomo Forestry Co. Ltd., JAPAN
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Senior Researcher

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Outline of Sumitomo Forestry

Overview

Company name : Sumitomo Forestry Co., Ltd.
Foundation : 1948
Start-up : 1691 (as predecessor of Sumitomo)
Employee : 17,001
Sales : 12 billion USD
Group company : 110（overseas 76）
Business : Forest management, International trading, Homebuilding, Real-estate, Large-scale timber building, Building material manufacture

Forest management



Trading


Manufacturing



Housing




Trading (international&domestic)

Unparalleled procurement capability with more than 20-country worldwide network

Timber procurement philosophy and policy for promoting forest preservation across the entire distribution process.

Housing (domestic)









Sumitomo forestry home houses: the top brand in traditional Japanese custom-built detached wooden houses

Housing (overseas)


Henly (USA)


Bloomfield homes (USA)

Henly homes (AUS)


Gehan homes (USA)


Dan Ryans Builders (USA)

Providing over 5,000 spec houses in nine states of America as well as in Australia

Real estate development (overseas)

Manufacturing (overseas)

Increasing production capacity as a manufacturing base of quality timber and building materials, also manufacturing operations augmenting production capacity to meet demand in developing countries.

Forest management (Overseas)

Approx. 191,000 ha of forest area

(Papua New Guinea: 31,000ha

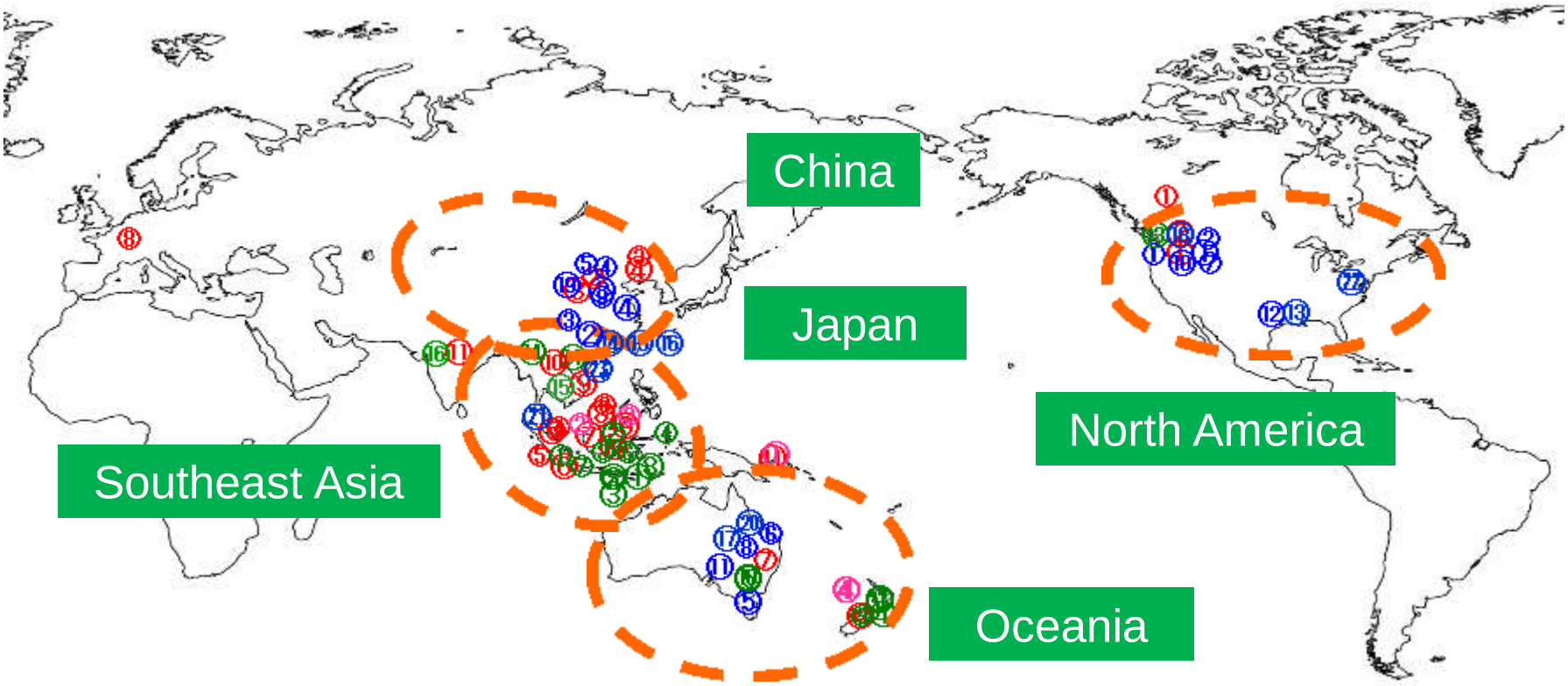
New Zealand: 35,000ha

Indonesia: 125,000ha)

enables us to supply sustainable forest resources throughout the world.

International hubs (Japanese version)

54 international hubs in 16 countries around Pacific rim



●流通拠点・事務所:①バンクーバー ②大連商貿 ③ハバロフスク ④SFシンガポール ⑤SFインドネシア
⑥コタキナバル ⑦SFオーストラリア ⑧アムステルダム ⑨SFベトナム ⑩SFタイ ⑪SFインド

●植林事業:①OBT社 ②MTI社 ③WSL社 ④NZ植林新会社(2016年6月予定)

●製造事業:①KTI社 ②KTI社(プロボリンゴ) ③KTI社(スラバヤ) ④KTI社(サマリンダ) ⑤ASTI社 ⑥RPI社 ⑦RPI社(ジャカルタ) ⑧SRP社
⑨NPIL社 ⑩Alpine MDF社 ⑪Vina Eco Board ⑫SFNZ ⑬Canyon Creek社 ⑭Mos Lumber Products ⑮PAP社 ⑯SFPL社

●住宅事業:①SFC Homes社 ②CRC社 ③パラゴン上海 ④パラゴン大連 ⑤大連ITS ⑥ヘンリー社 ⑦ヘンリーUSA社 ⑧335 Grices Road社 ⑨煙台海外金橋
⑩SFアメリカ ⑪Edgewater Homes社 ⑫Bloomfield Homes社 ⑬Gehan Homes社 ⑭スミリン香港 ⑮Partner Ally ⑯Rainbow Alpha
⑰SFA Land Developments ⑱Creekstone社 ⑲北京金隅装飾 ⑳Annadale ㉑DNS AI社 ㉒DRB社 ㉓Phu Hung Thai新会社(2016年予定)

International hubs (Kiwi version)

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Tsukuba Research Institute, JAPAN

Architecture group

Material Group

Resources group

The team researches and develops new solutions to improve housing and to better society through the use of forest resources.

Global timberlization movement

Global timberlization movement

cited from http://www.zurtek.net/galeria-finnforest/

Global timberlization movement

cited from *Nikkei Architecture* (2017)

Japanese timberlization movement

New National Olympic Stadium for 2020 TOKYO

cited from http://www.jpnsport.go.jp/newstadium/

Japanese timberlization movement

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Japanese timberlization movement

Japanese timberlization movement

A current state of conclusion

The world loves timber construction.

The world is looking for stiff, durable, and sustainable species.

Where can we get such an “all-in-one”?

Expectation on durable *Eucalyptus*

Does *E. bosistoana* fit for a purpose?

E. bosistoana is a super-durable species in Oceania.

However,

Every region has a different climate.

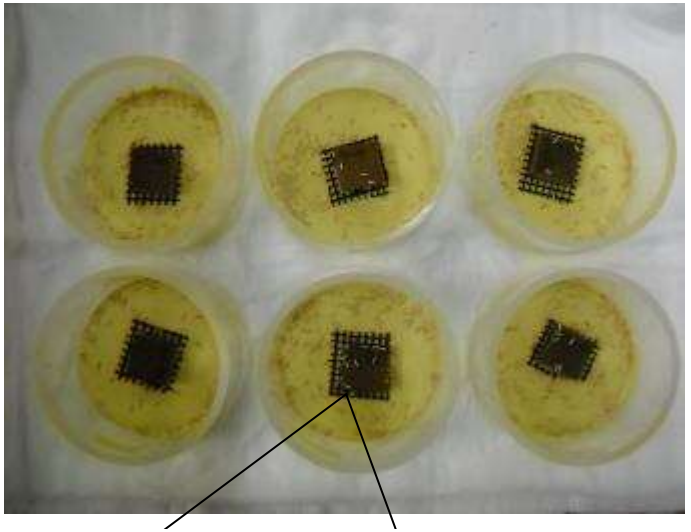
Every region has every different flora and fauna.

What about durability of *E. bosistoana* under Japanese conditions which are known as on the world's most severe environment for a timber usage?

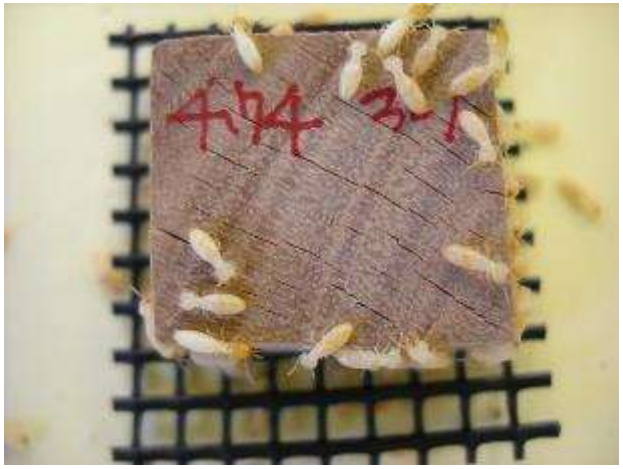
Attack by termites

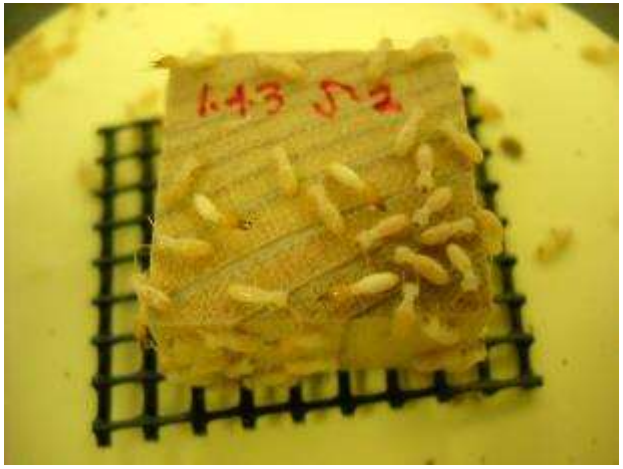
Tiny but annoying creature always looking for something to eat.

Termite test (modified Japanese Industrial Standard K 1571)



The 15 soldiers and 150 workers are supplied for each test cup.





Termite test (modified Japanese Industrial Standard K 1571)

Radiata Pine

Japanese Cedar

Western Red Cedar

E. bosistoana

Fungus cellar test (modified Japanese Industrial Standard K 1571)

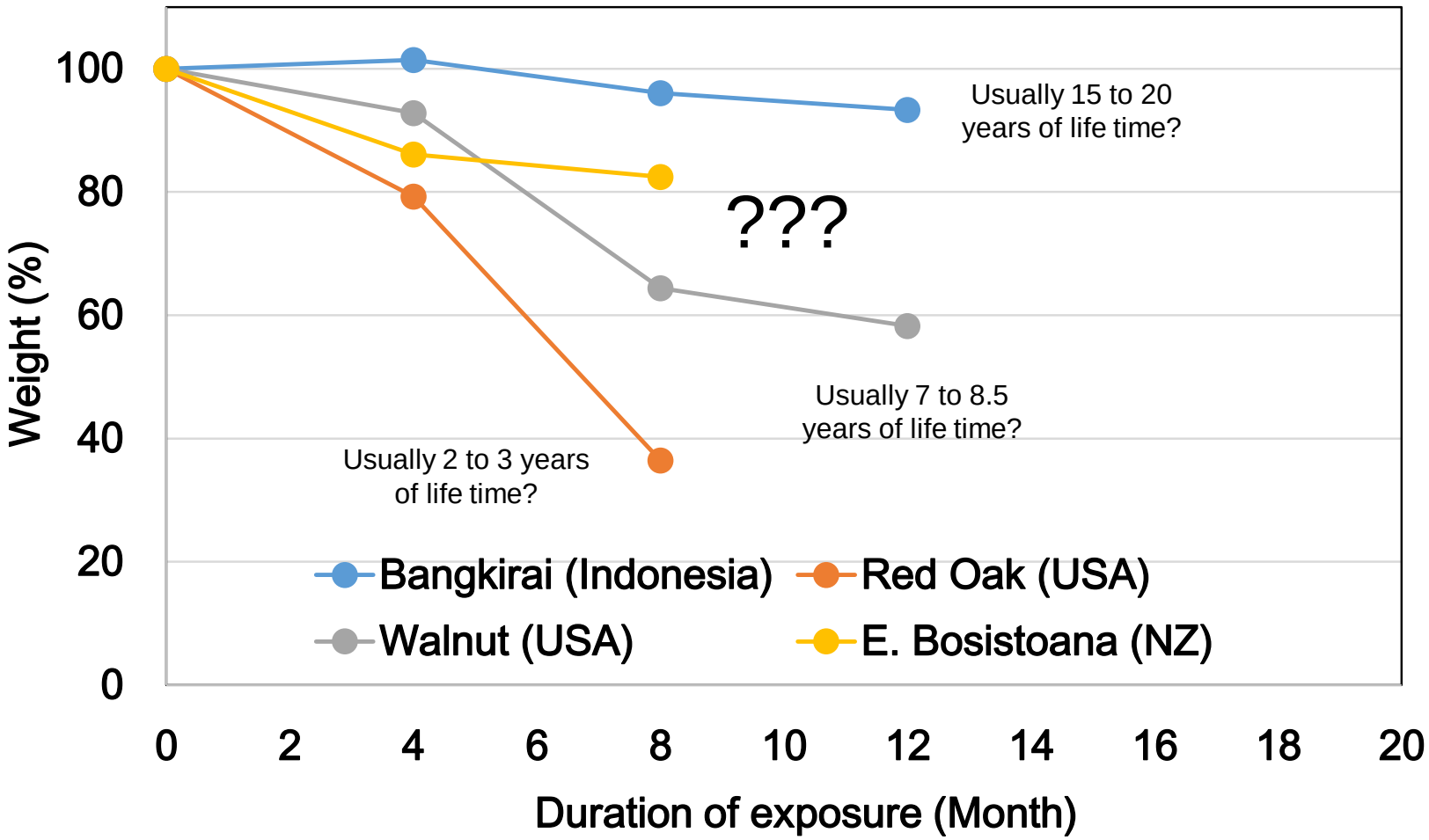
Specially prepared soil with plenty of moisture and nutrients under controlled temperature, which enhances wood rotting fungi activities

Fungus cellar test (modified Japanese Industrial Standard K 1571)

Typical appearance after one year burial

(left) Walnut, (right-top) Bangkirai (Selangan batu), (right-bottom) *E. bosistoana*

Fungus cellar test (modified Japanese Industrial Standard K 1571)



Estimating lifetime of *E. bosistoana* against decay is too early. Unimproved *E. bositoana.* seems to be durable but not to be as durable as tropical species.

Summary and recommendation

● Termite resistance?

Yes. But an actual outdoor exposure test will give us further confidence.

● Decay resistance?

Yes. But unimproved one might not be as durable as tropical durable species. (but ones from tropical are neither sustainable nor environmental benign)

● Concerns?

Yes. “Growth-stresses” is to be improved for various reasons.
(but this is under improvement by NZDFI)

● Is *E. bosistoana* “all-in-one”?

Yes. It can be called as so in Japan.

● Recommendable?

Yes. “Let’s move forward to the next step”.

Ka Pai and Arigatou