

Evolution & Development

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Gymnosperm MADS-box genes

Localization of RNAs in a direct-developing frog
Pax258 and the antiquity of metazoan geosensory organs

Polymorphic mimicry in *Papilio dardanus*

Gene networks and evolution of spatial patterns

Teeth on the cusp of evolution and development

Structure trees, species trees, and evo-devo



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Publishing

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Evo-devo on "uusi"
tieteenala, joka yhdistää
kehitysbiologian ja
evoluution, useimmiten
tutkimalla kehityksessä
keskeisiä geeniperheitä,
kuten hom-hox –perhettä

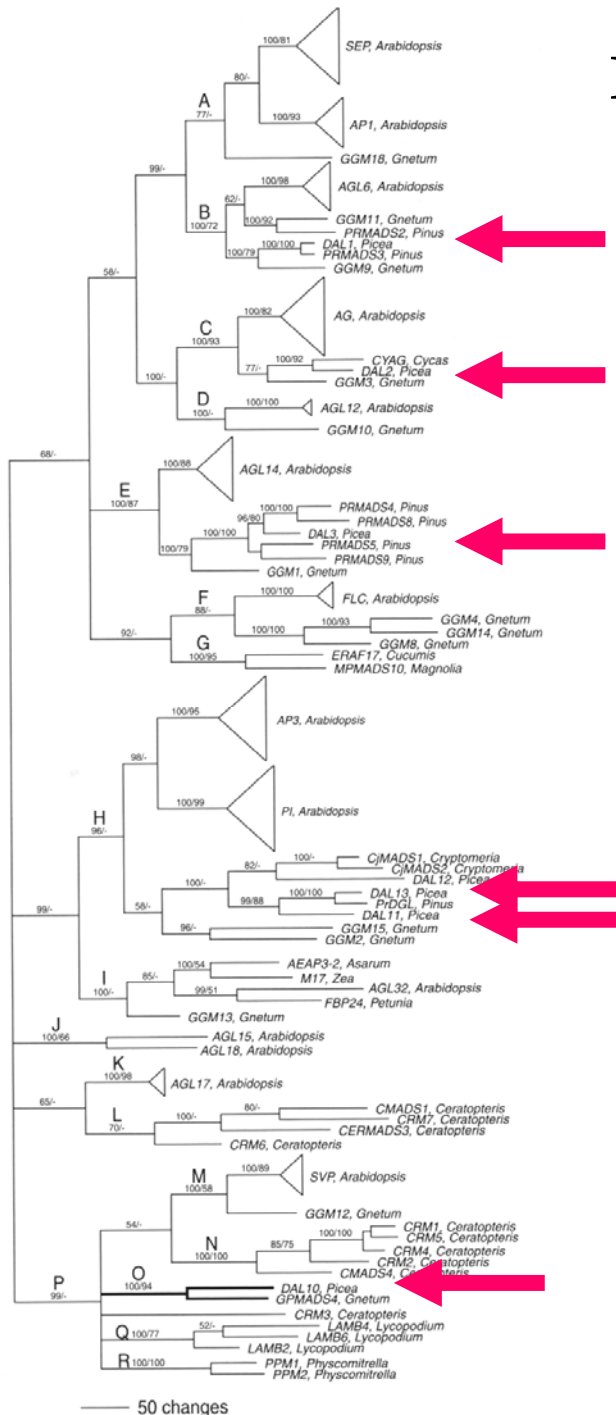
Kasveilla tämä keskeinen
perhe on MADS-box -
perhe

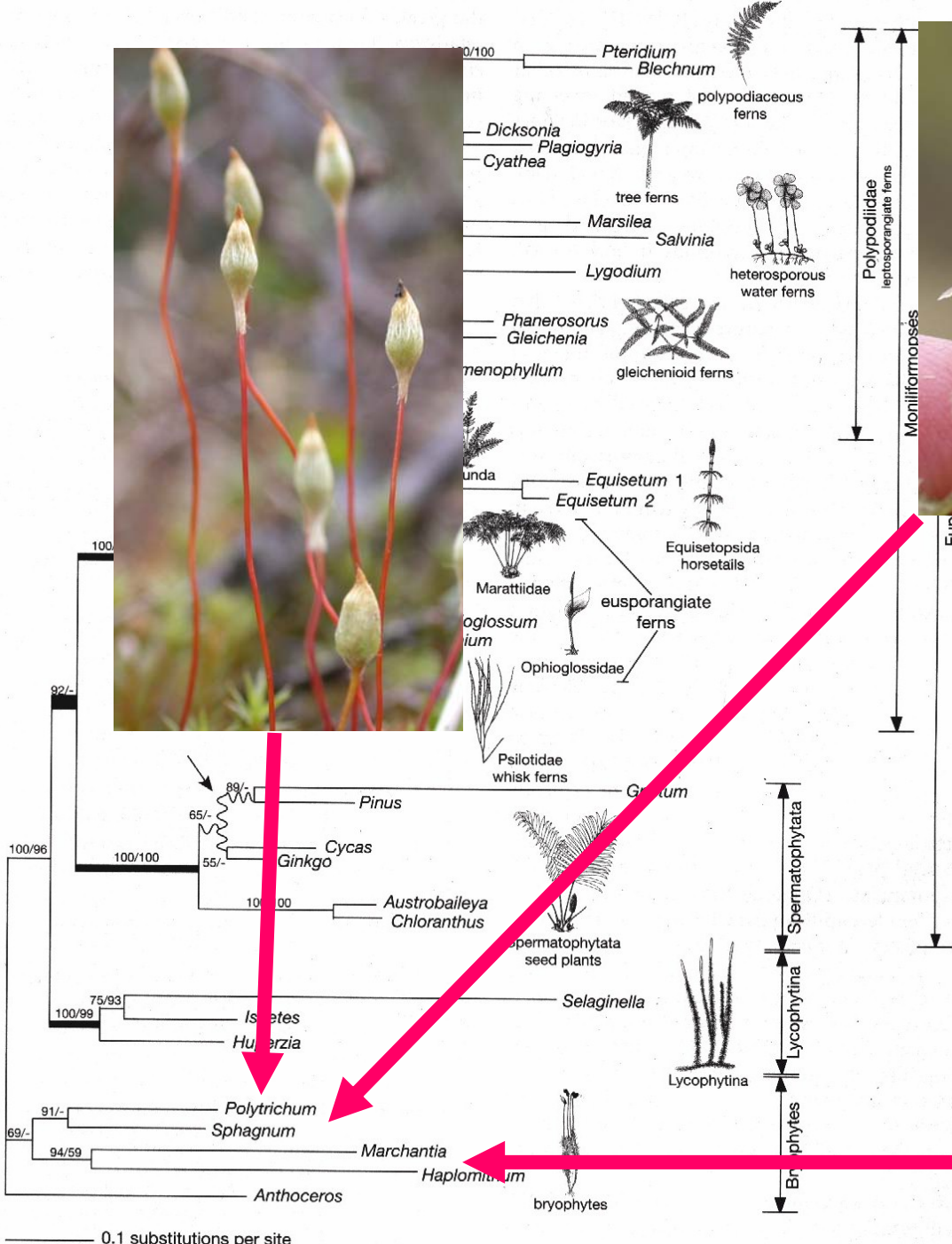
MADS-perhe

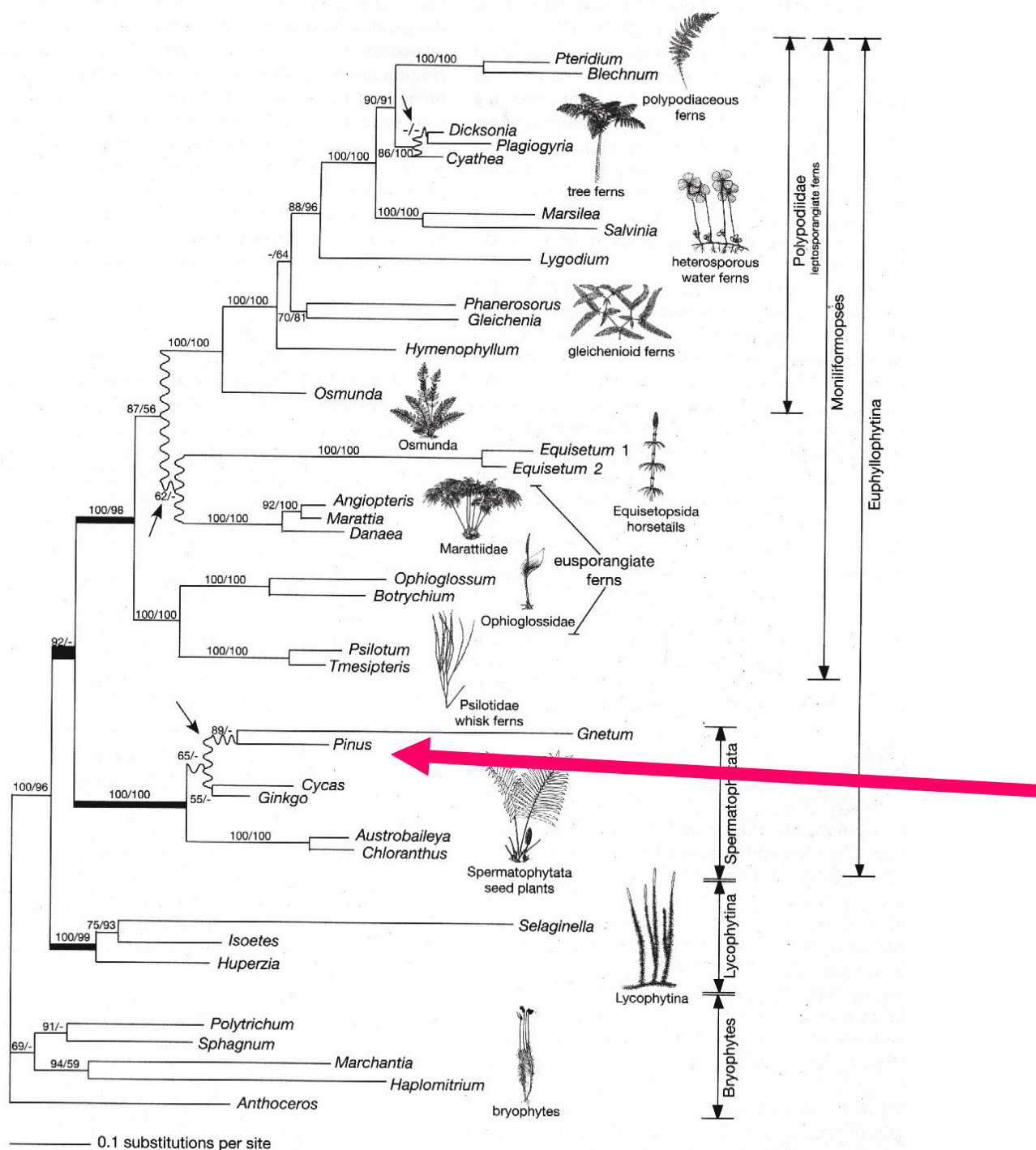
Deficiens
Agamous
Like

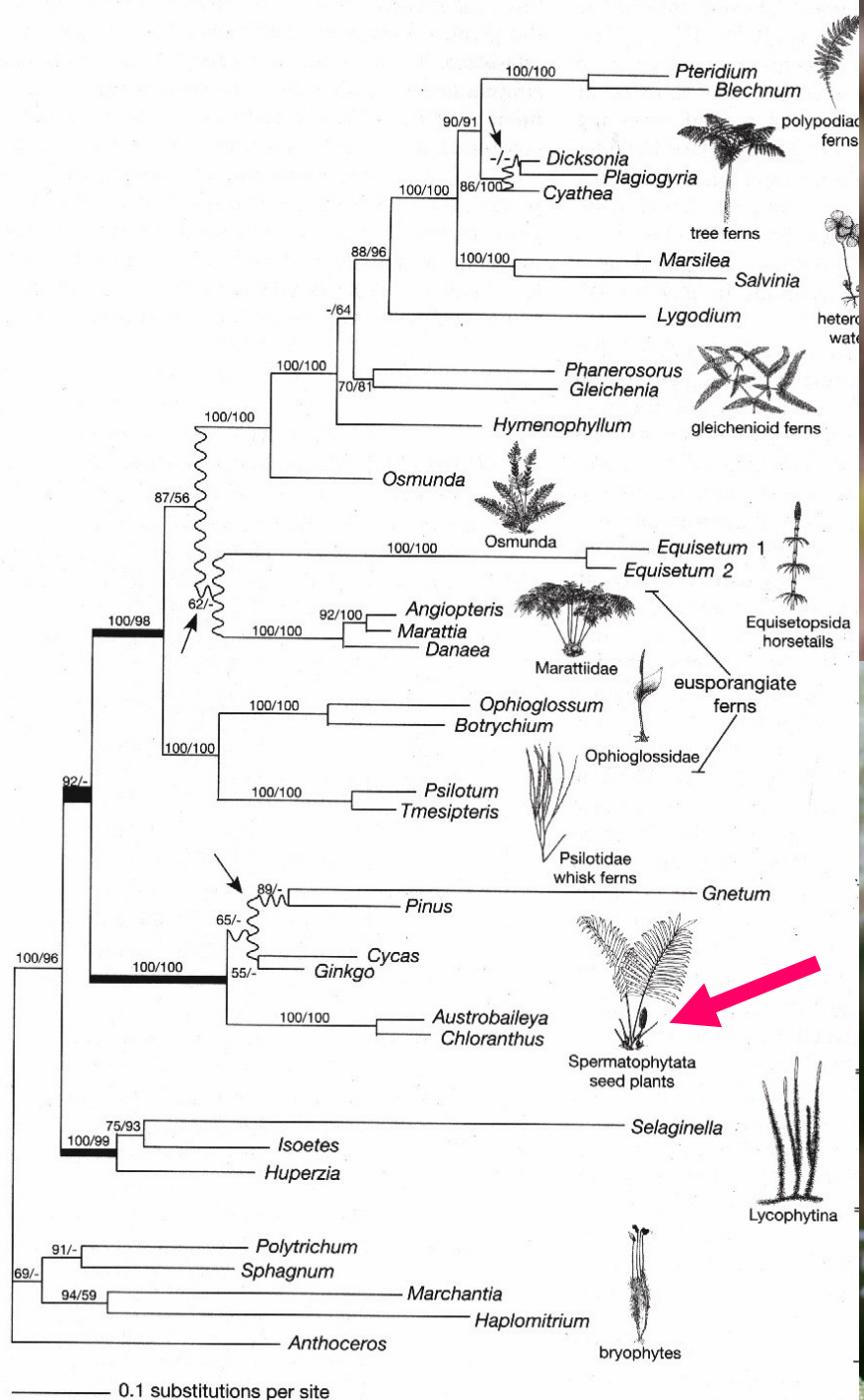
Muita DAL-geenejä kuusella

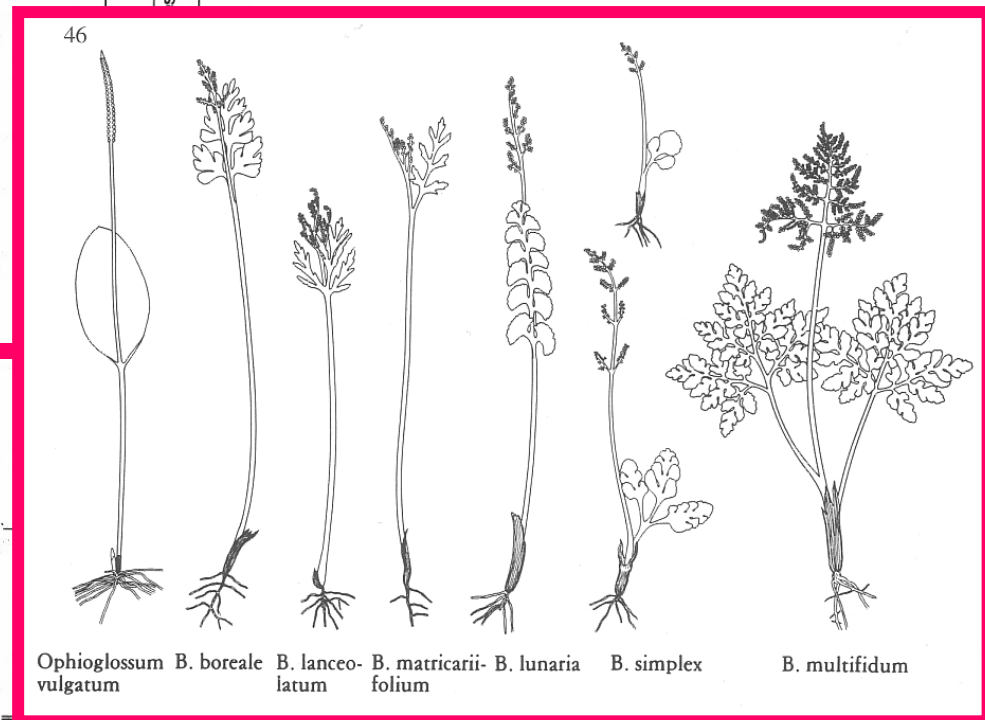
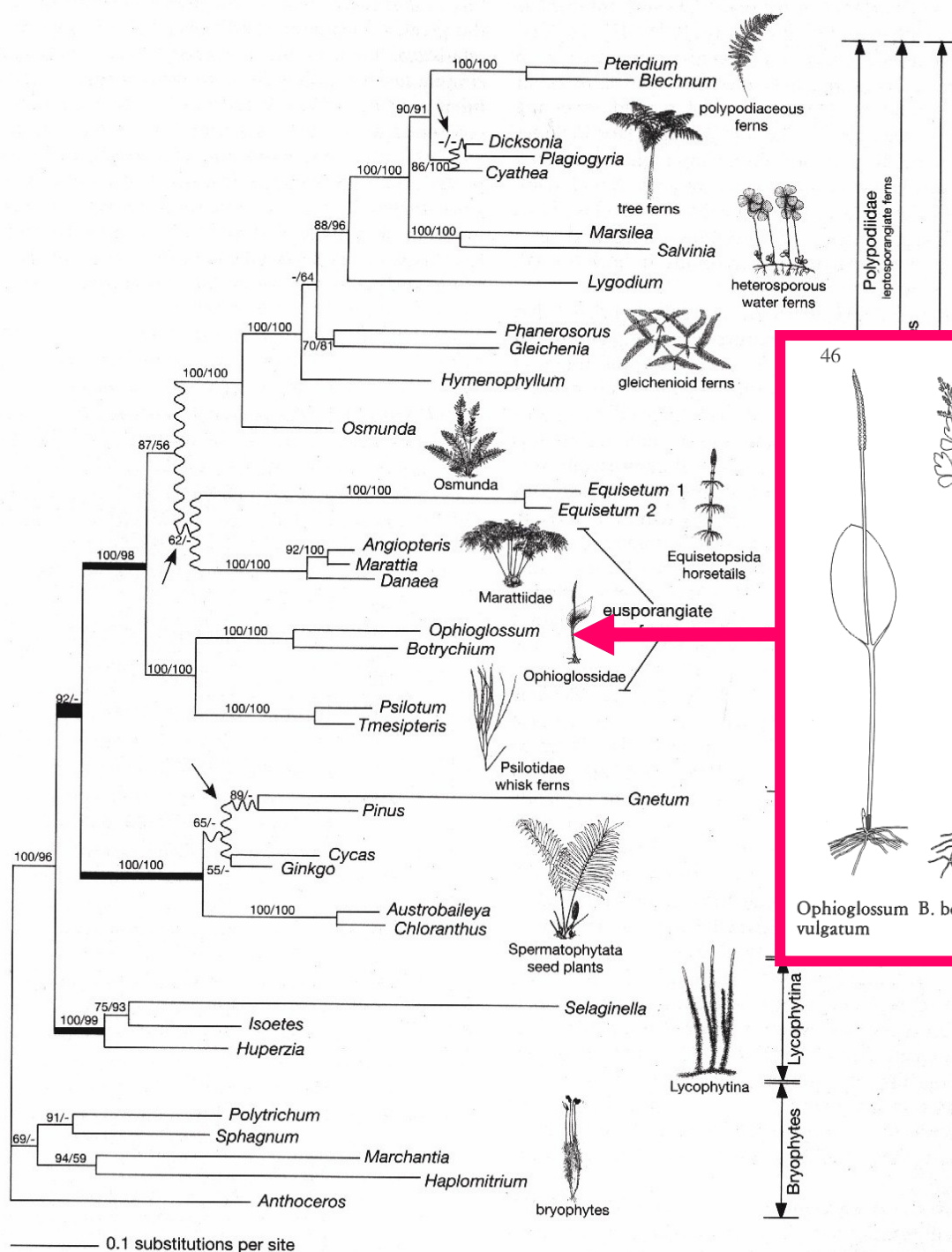
Männyn geenien nimet on
PRMADS tai PrDGL

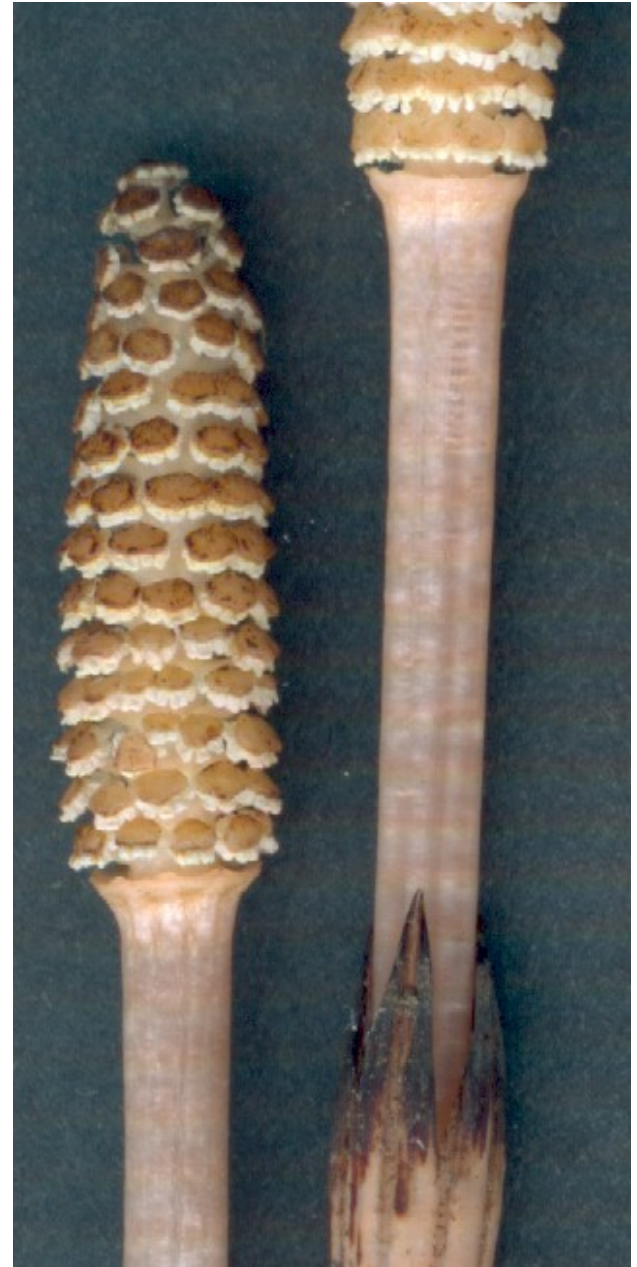
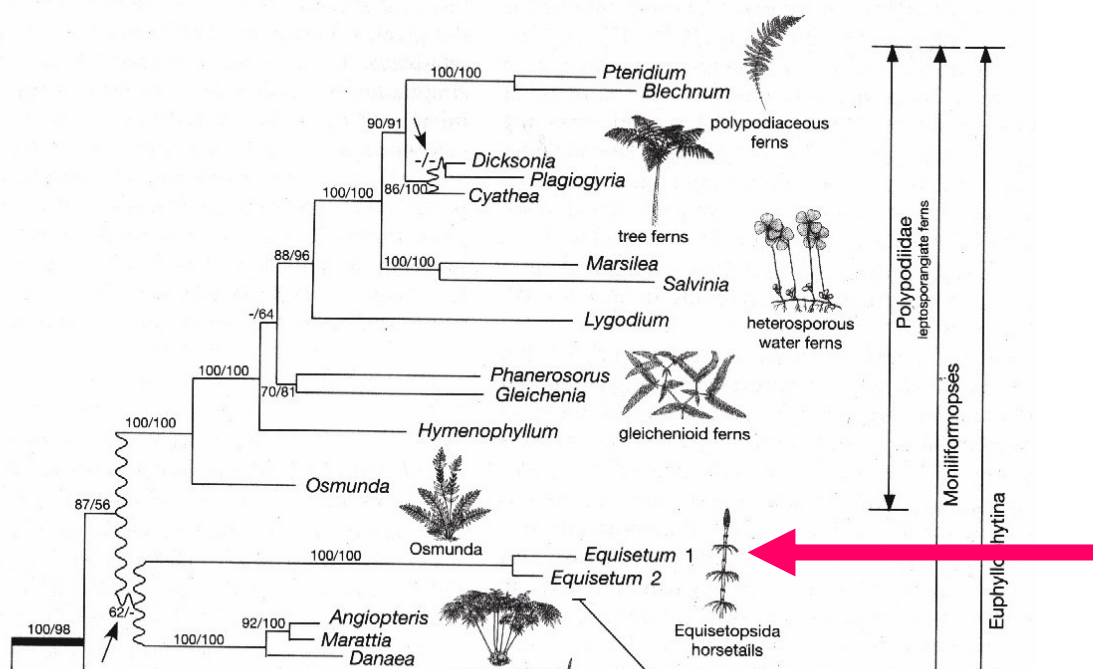


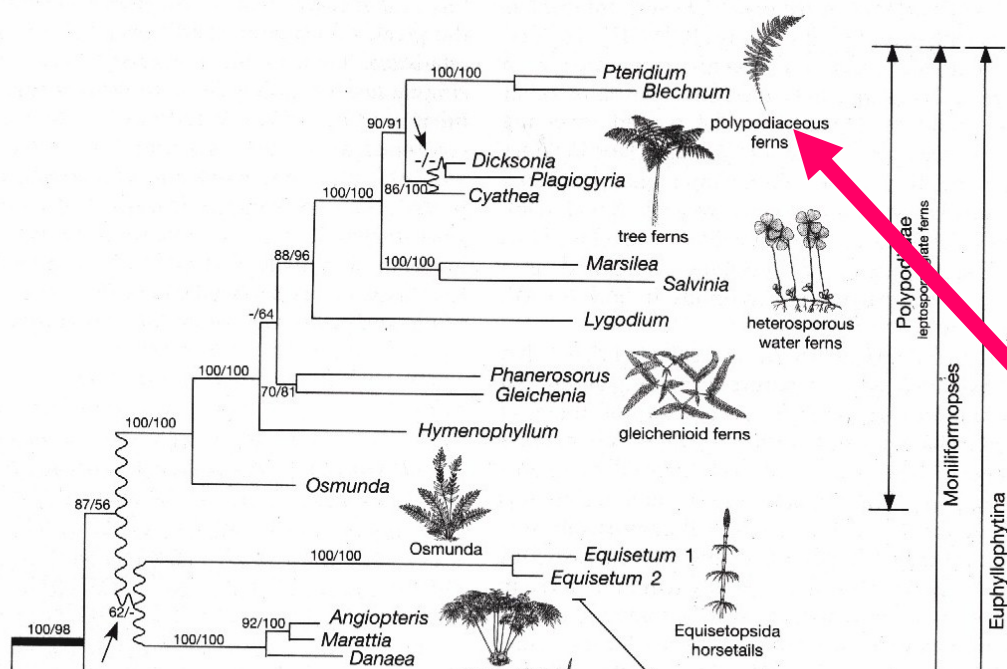


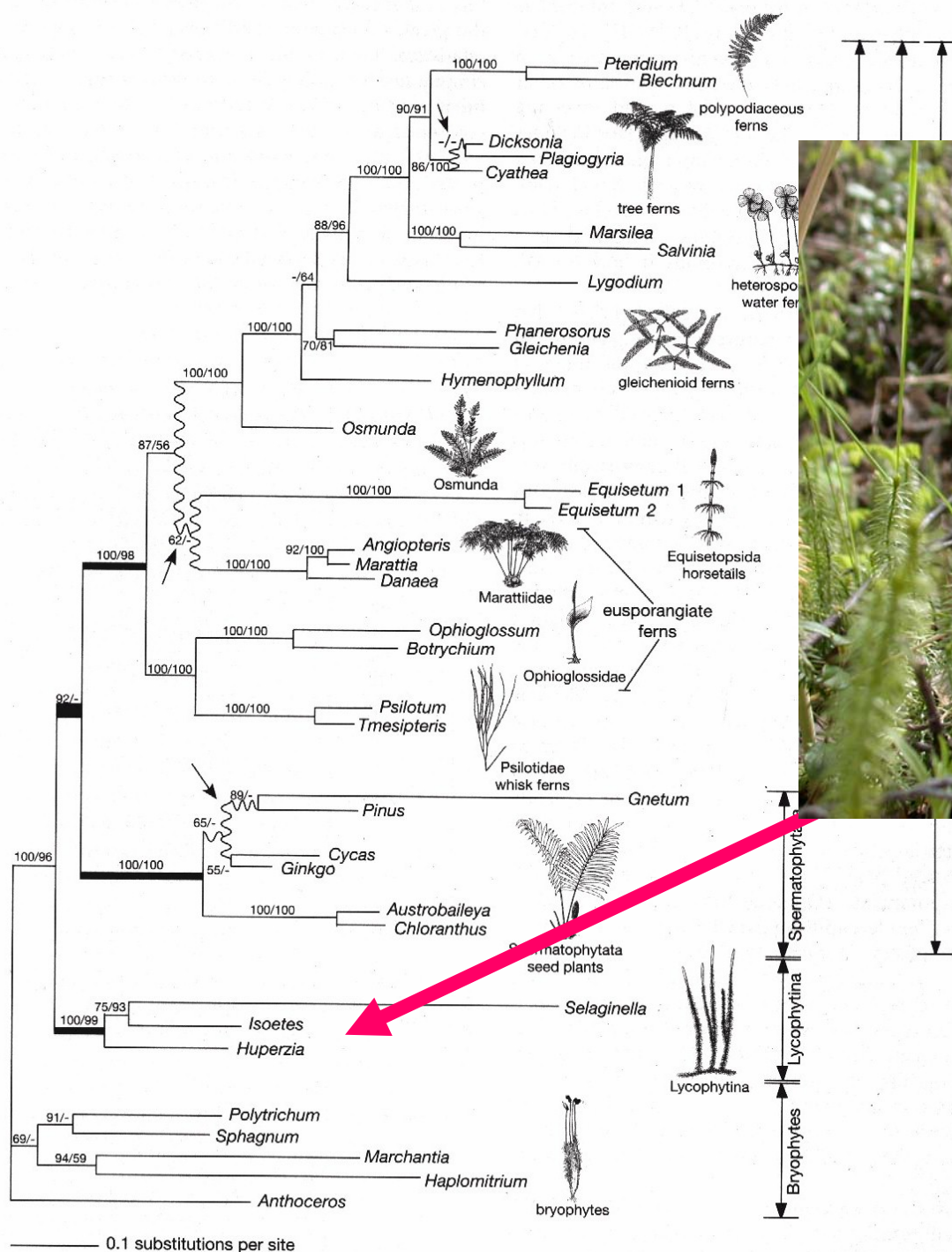




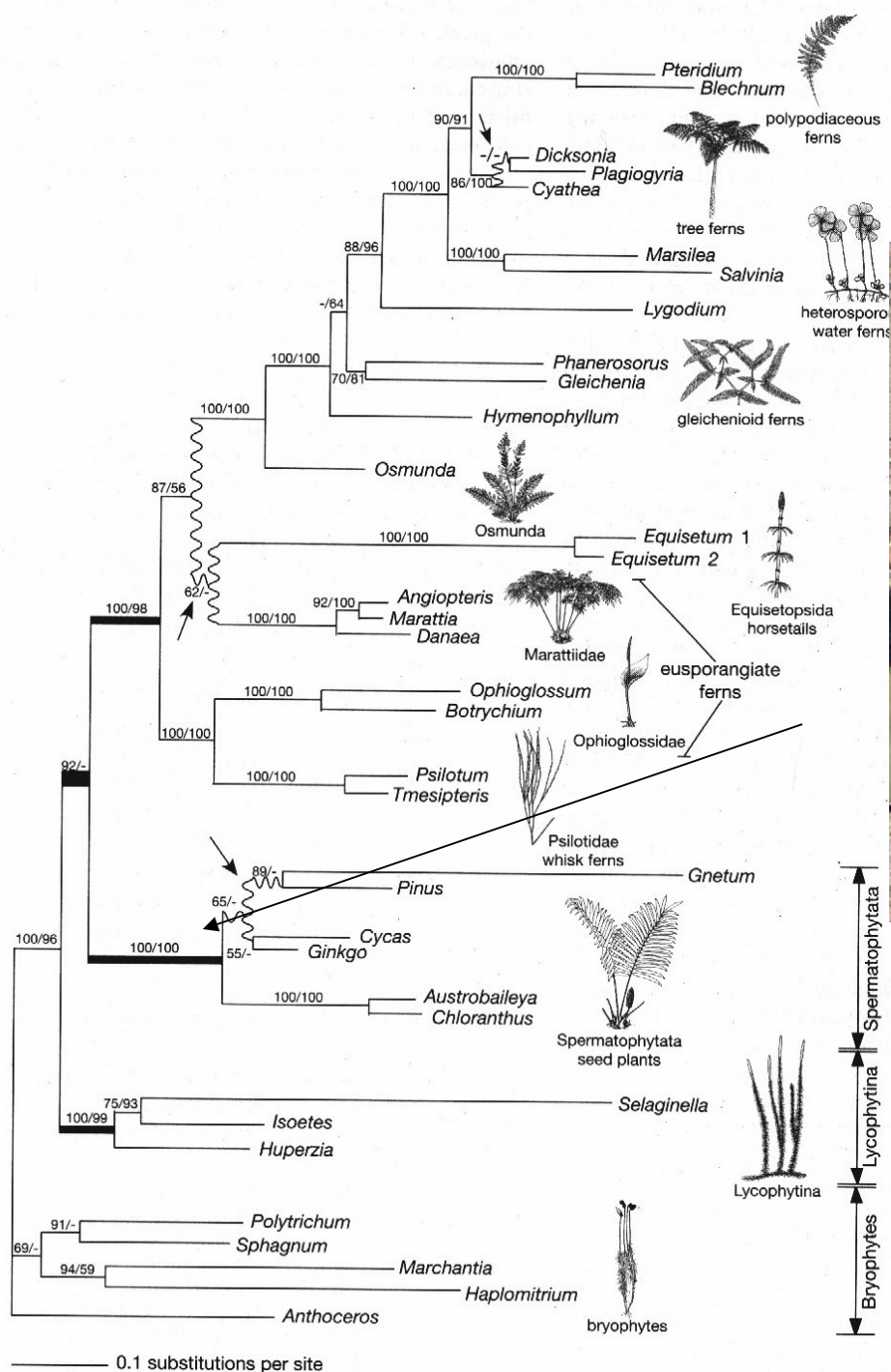








Miten on MADSit?



Welwitschia mirabilis, naaras.
Kasvilla on vain kaksi lehteä,
jotka kasvavat tyvestä satoja
vuosia. Miten MADSit
ekspressoituu?

The Floral Regulator LEAFY Evolves by Substitutions in the DNA Binding Domain

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Josip Perkovic,¹ Masahiro Kato,³ Mitsuyasu Hasebe,⁴
Detlef Weigel^{1*}

The plant-specific transcription factor LEAFY controls general aspects of the life cycle in a basal plant, the moss *Physcomitrella patens*. In contrast, LEAFY has more specialized functions in angiosperms, where it specifically induces floral fate during the reproductive phase. This raises the question of a concomitant change in the biochemical function of LEAFY during the evolution of land plants. We report that the DNA binding domain of LEAFY, although largely conserved, has diverged in activity. On the contrary, other, more rapidly evolving portions of the protein have few effects on LEAFY activity.

LEAFY (LFY) is found in all land plants, which evolved during the past 400 million years. The proteins are remarkably well

conserved with two blocks of similarity: the N- and C-terminal regions (the N and C domains) (Fig. 1A). All missense mutations