

Systematic Botany. Lecture 37

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Outline

Questions and answers

Angiosperms

Rosidae, part 1

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Angiosperms

Rosidae, part 1

Previous final question: the answer

What is a most advanced group of monocots? Why?

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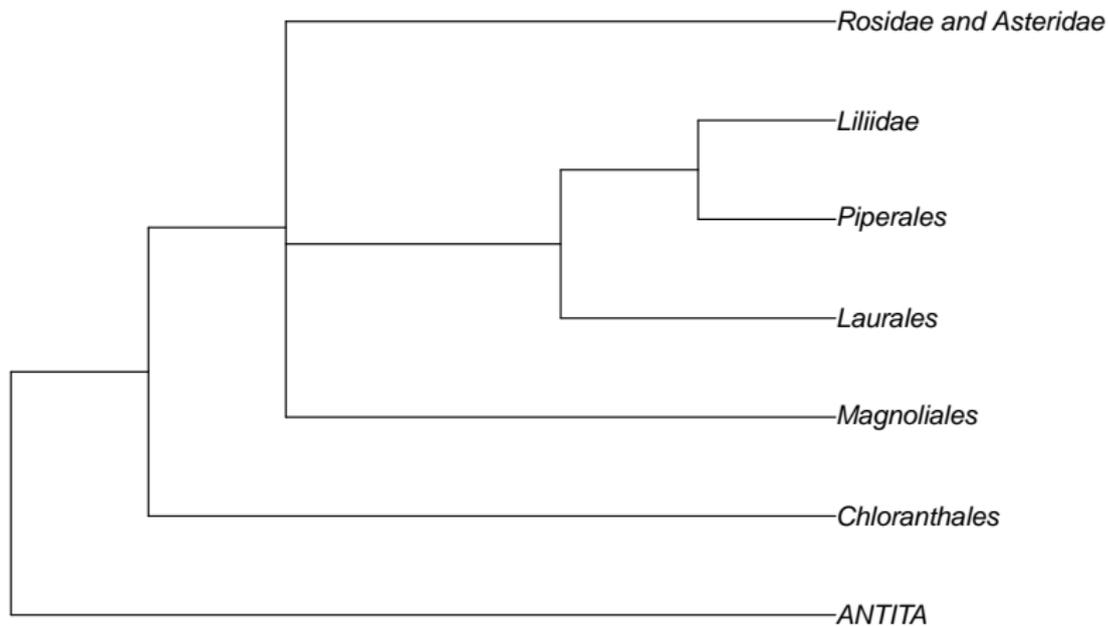
What is a most advanced group of monocots? Why?

- ▶ Answers may be different, but you needed to show which characters should be accepted as “advanced”

Germination rate in non-angiosperms

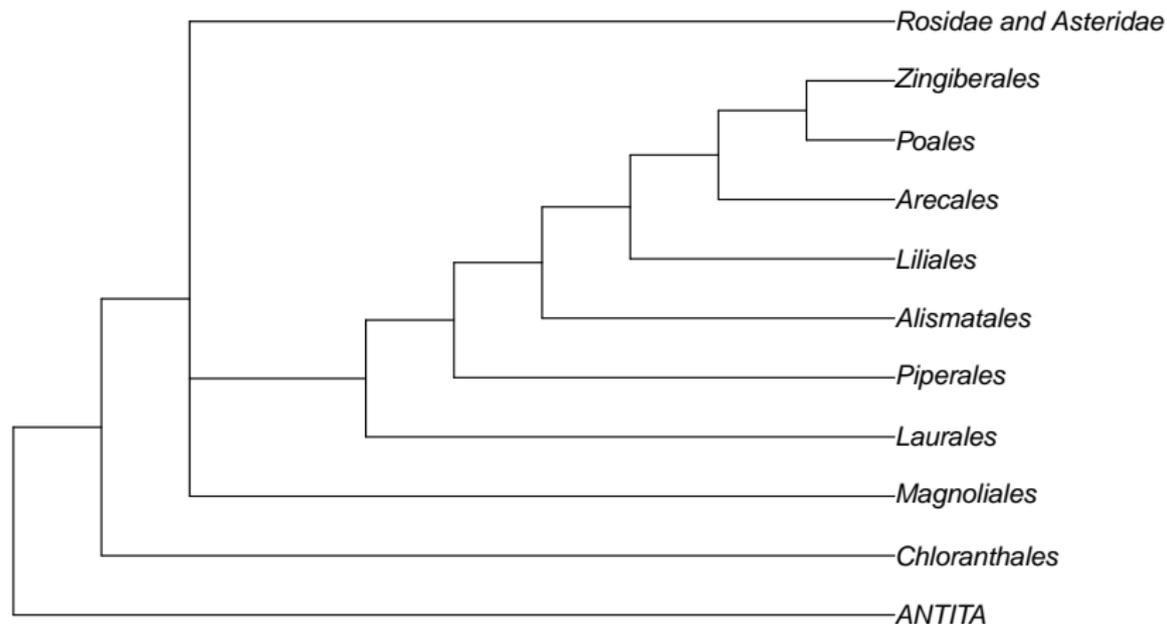


General phylogeny of angiosperms groups studied



Ceratophyllales unplaced

General phylogeny + liliid orders



Angiosperms

Rosidae, part 1

Ranunculales

Subclassis *Rosidae* [^{4.8}*Rosa*]* s.a.⁴⁷

Superordo *Ranunculanae* [^{4.2}*Ranunculus*]

Ordo 12. RANUNCULALES [⁴*Ranunculus*]

Subordo *Eupteleineae* [^{3.8}*Euptelea*]

Familia 1(86). *Eupteleaceae* K. Wilh. [³*Euptelea*]

Subordo *Papaverineae* [^{3.8}*Papaver*]

Familia 2(87). *Papaveraceae* (Endl.) Blume ex Hassk. [³*Papaver*]
sed.m. et s.a.⁴⁸

Subordo *Lardizabalineae* [^{3.8}*Lardizabala*]

Familia 3(88). *Lardizabalaceae* R. Br. [³*Lardizabala*]⁴⁹

4(89). *Circaeasteraceae* Hutch. [³*Circaeaster*]⁵⁰

Subordo *Ranunculineae* [^{3.8}*Ranunculus*]

Familia 5(90). *Menispermaceae* Juss. [³*Menispermum*]

6(91). *Berberidaceae* Juss. [³*Berberis*]⁵¹

7(92). *Ranunculaceae* Juss. [³*Ranunculus*]⁵²

Platanales and Dilleniales

Ordo 13. PLATANALES [⁴*Platanus*]* s.a.

Subordo *Nelumbonineae* [^{3,8}*Nelumbo*]

Familia 1(93). *Nelumbonaceae* A. Rich. [³*Nelumbo*]

Subordo *Platanineae* [^{3,8}*Platanus*]

Familia 2(94). *Platanaceae* T. Lestib. [³*Platanus*]

3(95). *Proteaceae* Juss. [³*Protea*]

Subordo *Sabiineae* [^{3,8}*Sabia*]

Familia 4(96). *Sabiaceae* Blume [³*Sabia*] sed.m.⁵³

Subordo *Buxineae* [^{3,8}*Buxus*]

Familia 5(97). *Trochodendraceae* Eichler [³*Trochodendron*]⁵⁴

6(98). *Didymelaceae* Leandri [³*Didymeles*]

7(99). *Buxaceae* Dumort. [³*Buxus*]⁵⁵

Subordo *Gunnerineae* [^{3,8}*Gunnera*] stat.m.

Familia 8(100). *Gunneraceae* [³*Gunnera*] Meisn.

9(101). *Myrothamnaceae* [³*Myrothamnus*] Nied.

Ordo 14. DILLENIALES sed.m. [⁴*Dillenia*]

Familia 1(102). *Dilleniaceae* Salisb. [³*Dillenia*]

Saxifragales

Ordo 15. SAXIFRAGALES [⁴*Saxifraga*]

Subordo *Paeoniineae* [^{3,8}*Paeonia*]

Familia 1(103). *Peridiscaceae* Kuhl. [³*Peridiscus*]⁵⁶

2(104). *Paeoniaceae* Raf. [³*Paeonia*]

Subordo *Hamamelidineae* [^{3,8}*Hamamelis*]

Familia 3(105). *Altingiaceae* Horan. [³*Altingia*]

4(106). *Hamamelidaceae* R. Br. [³*Hamamelis*]

5(107). *Cercidiphyllaceae* Engl. [³*Cercidiphyllum*]

6(108). *Daphniphyllaceae* Muell.-Arg. [³*Daphniphyllum*]

Subordo *Saxifragineae* [^{3,8}*Saxifraga*]

Familia 7(109). *Crassulaceae* J. St.-Hil. [³*Crassula*]

8(110). *Haloragaceae* R. Br. [³*Haloragis*] s.a.⁵⁷

9(111). *Saxifragaceae* Juss. [³*Saxifraga*] s.a.⁵⁸

Vitales

Ordo 16. VITALES [⁴*Vitis*]

Familia 1(112). *Vitaceae* Juss. [³*Vitis*]⁵⁹

Geraniales

Superordo *Malvanae* [^{4.2}*Malva*] s.a.

Ordo 17. GERANIALES [⁴*Geranium*] s.a., s.m.

Subordo *Geraniineae* [^{3.8}*Geranium*]

Familia 1(113). *Geraniaceae* Juss. [³*Geranium*] s.a.⁶⁰

2(114). *Melianthaceae* Link [³*Melianthus*] s.a.⁶¹

Subordo *Staphyleineae* [^{3.8}*Staphylea*]

Familia 3(115). *Staphyleaceae* Martynov [³*Staphylea*] s.s.

4(116). *Guamatelaceae* Oh et Porter [³*Guamatela*]

5(117). *Stachyuraceae* J. Agardh [³*Stachyurus*]

6(118). *Crossosomataceae* Engl. [³*Crossosoma*]⁶²

7(119). *Aphloiaceae* Takht. [³*Aphloia*]

8(120). *Geissolomataceae* A. DC. [³*Geissoloma*]

9(121). *Strasburgeriaceae* Tiegh. ex Soler. [³*Strasburgeria*]⁶³

Myrtales

Ordo 18. MYRTALES [⁴*Myrtus*] sed.m.

Subordo *Myrtineae* [^{3,8}*Myrtus*]

Familia 1(122). *Vochysiaceae* A. St.-Hil. [³*Vochysia*]

2(123). *Myrtaceae* Juss. [³*Myrtus*] s.a.⁶⁴

Subordo *Onagrineae* [^{3,8}*Oenothera*]

Familia 3(124). *Combretaceae* R. Br. [³*Combretum*]

4(125). *Lythraceae* J. St.-Hil. [³*Lythrum*] s.a.⁶⁵

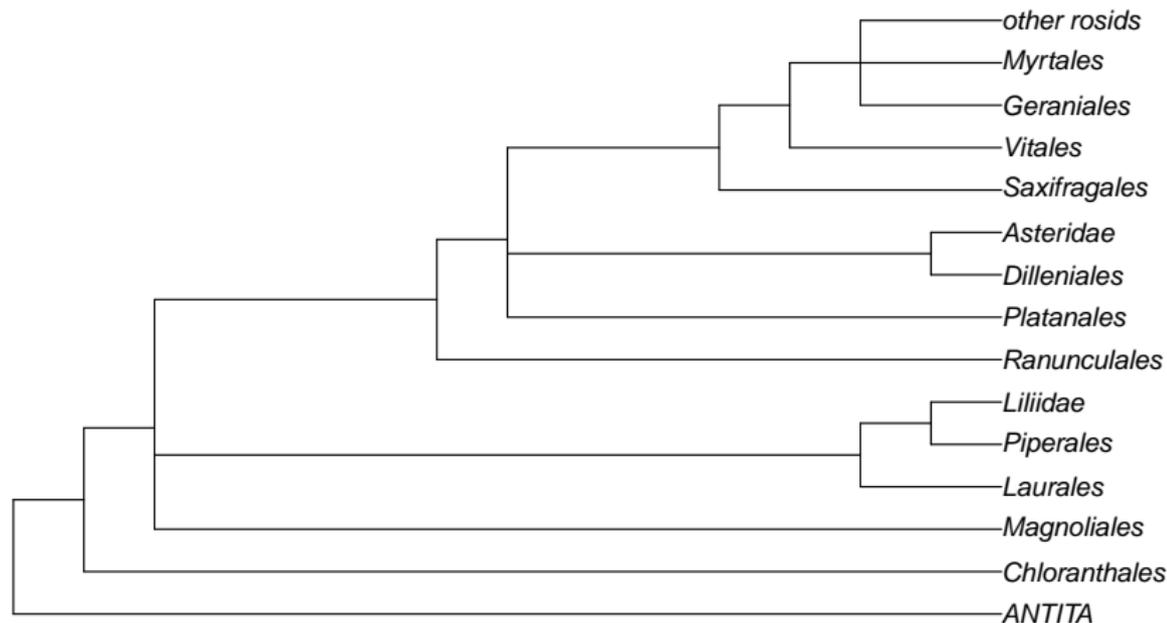
5(126). *Onagraceae* Juss. [³*Oenothera*]

Subordo *Melastomatineae* [^{3,8}*Melastoma*]

Familia 6(127). *Melastomataceae* Juss. [³*Melastoma*]⁶⁶

7(128). *Penaeaceae* Sweet ex Guill. [³*Penaea*] s.a.⁶⁷

General phylogeny + basal rosid orders



Final question (3 points)

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Give the short characteristic of any of 7 orders studied.

For Further Reading



Margulis and Chapman. 2009.

Kingdoms and domains: an illustrated guide to the phyla of life on Earth. 4th edition.