

The ways fossils are preserved can be divided into eight categories, some are typical of plants, and others of animals

CATEGORY

typical of fossil	<i>Plants</i>	<i>Animals</i>
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1. impressions	XXX	XX
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2-dimensional, mineralic,
 lack organic matter
 (e.g leaf imprints, dinosaur tracks)

2. compressions	XXX	X
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2-dimensional, unmineralized,
 mostly organic matter
 (e.g organic films, fossil leaves, compressed worms)

3. petrifications	XXX	(~0)
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3-dimensional, mineral embedded
 (permineralized)
 (e.g petrified wood, bone, Precambrian microbes)

4. compactions	XX	(~0)
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3-dimensional, unmineralized
 mostly organic matter
 (e.g compacted plant stems and seed cones)

5. replacements	X	XX
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3-dimensional, original organic matter
 replaced by another mineral
 (e.g pyrite replaced fossil shells)

<p>XXX = especially common XX = not common X = rare ~0 = almost never 0 = virtually unknown</p>
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CATEGORY

<u>typical of fossil</u>	<u>Plants</u>	<u>Animals</u>
6. casts and molds 3-dimensional, casts = sediment-filled voids molds = encased imprints (e.g casts of hollow plant stems, Pompeii humans 79 A.D.)	XX	XX
7. hard part preservation 3-dimensional, mineral makeup essentially unchanged (e.g many fossil bones, teeth, shells)	0	XXX
8. miscellaneous 3-dimensional, usually composed of organic matter (e.g insects in amber, animals mummified in dry caves, bogs, tar pits, frozen in permafrost)	X	X

XXX = especially common

XX = not common

X = rare

~0 = almost never

0 = virtually unknown