

Aging White-tailed deer by tooth wear and replacement



Aging Characteristics

- Physical Characteristics
 - Antler Size
 - Number of points not correlated with age
 - Body size and shape
 - Neck
 - Waist
 - Back
 - Behavior
 - Tooth wear and replacement
- Harvested Deer



Age Classes

- Born in May and June
- Fall harvest
 - 6 months- fawn
 - 1.5 yrs- yearling
 - 2.5 yrs
 - 3.5 yrs
 - 4.5 yrs
 - 5.5 yrs
 - 6.5 yrs

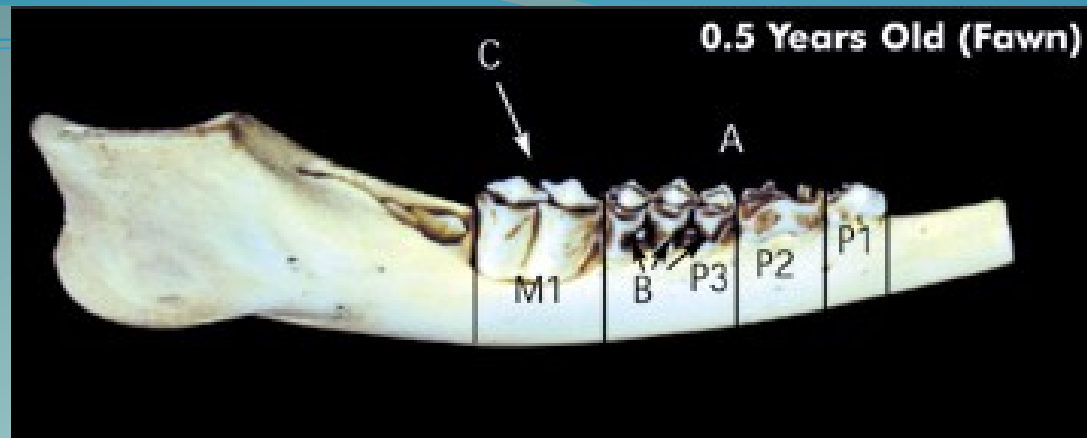


Tooth Wear

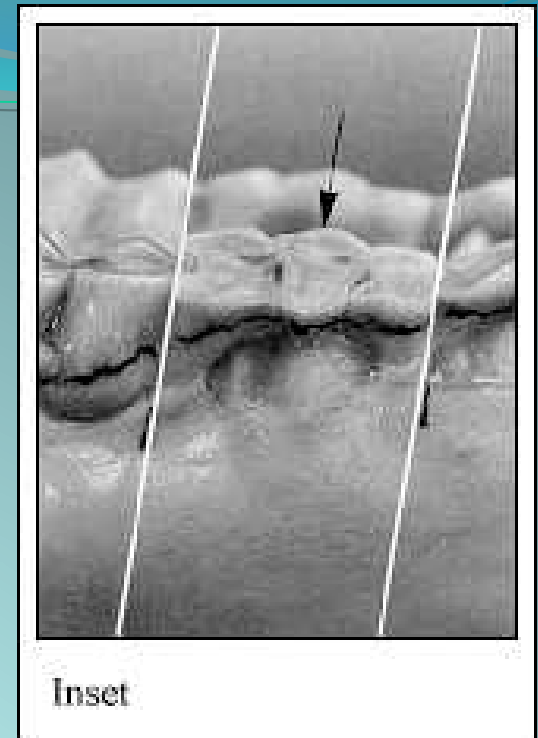
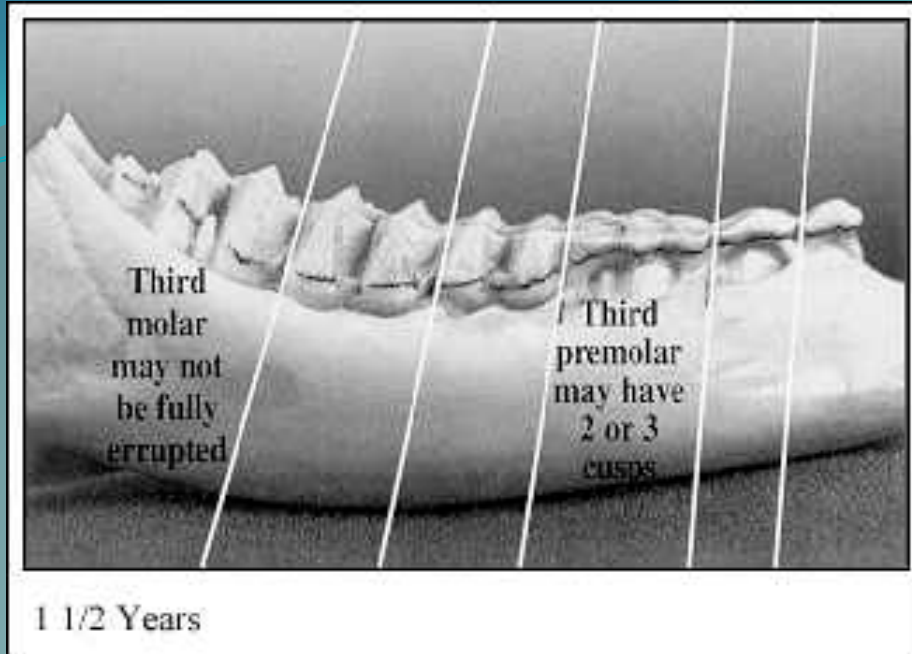
- The amount of visible dentine is an important factor in determining the age.
- The tooth wear and replacement method is not 100% accurate however, due to the differences in habitat.
- Tooth wear on a farmland deer may not be as fast as that of a deep woods buck.

Severinghaus (1949) aging method

- Focus on lower jaw bone
- Adult deer
 - 3 premolars and 3 molars

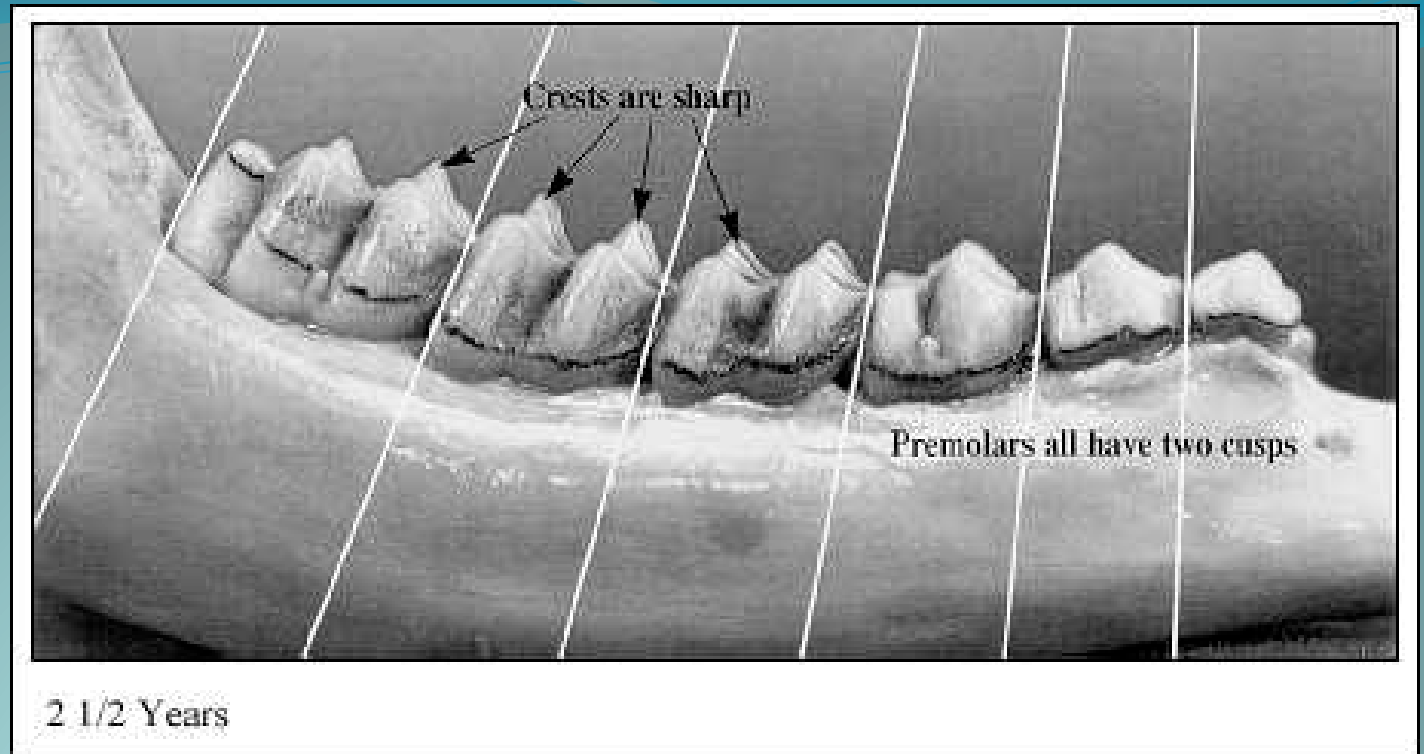


- **6 Months**
- 4 teeth showing.
- 3rd premolar has three cusps



1.5 yrs

- 6 teeth
- Third premolar
- Third molar (last tooth) may still be erupting
- Cusps of molars have sharp points.
- **Inset: Extremely worn third premolar may fool people into thinking deer is older. Actually, this tooth is lost after 1-1/2; years and replaced with a permanent two-cusped premolar.**

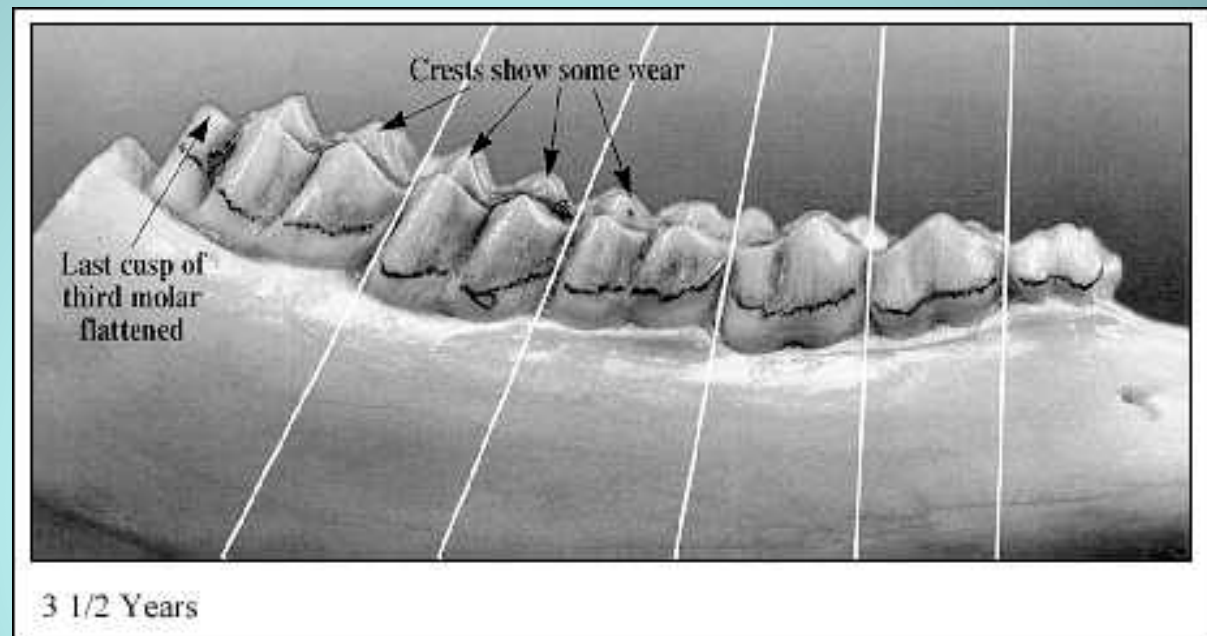


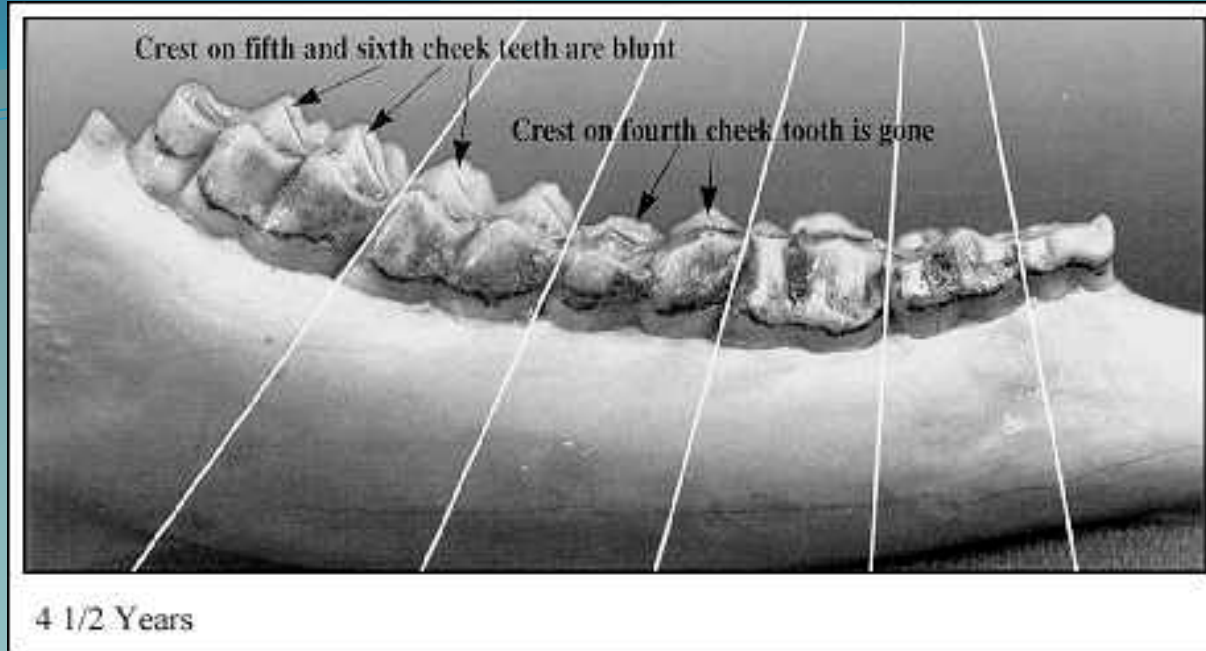
2.5 yrs

- Teeth are permanent
- On the first molar (4th tooth) the cusps are sharp
- Enamel > dentine
- Third cusp (back cusp) of sixth tooth (third molar) is sharp.

3.5 yrs

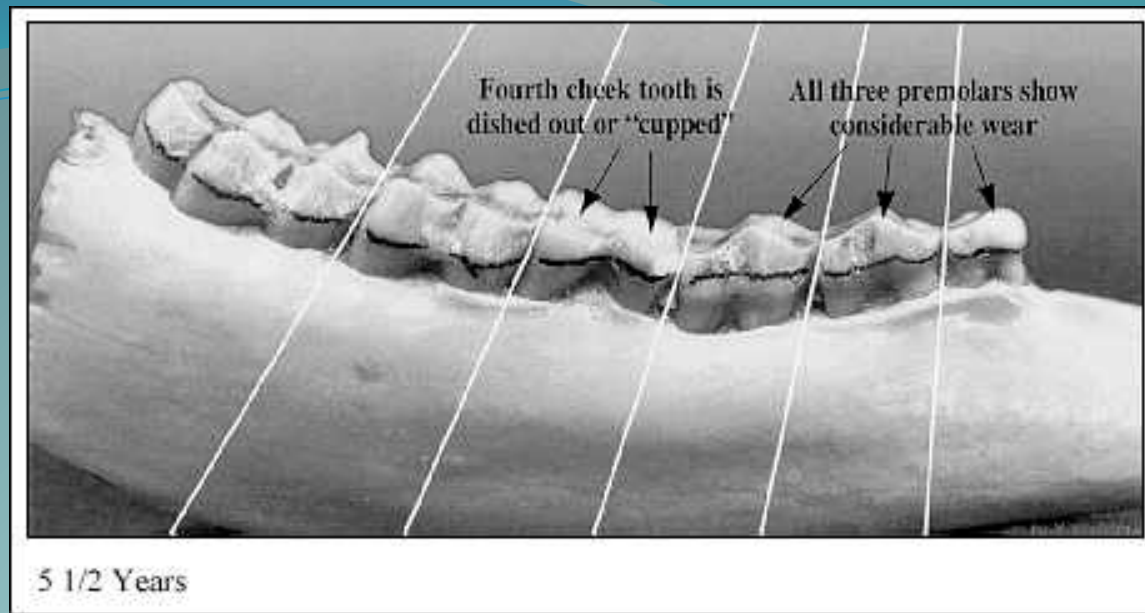
- Cusps show some wear
- Dentine now thicker than enamel on cusp of fourth tooth (first molar).
- Dentine of fifth tooth (second molar) usually not as wide as enamel.
- Back cusp is flattened.





4.5 yrs

- Cusp of fourth tooth (first molar) is gone.
- Cusps on fifth and sixth teeth (second and third molar) are blunt.
- Dentine of fourth tooth now twice as wide as enamel.
- Dentine of fifth tooth wider than enamel.

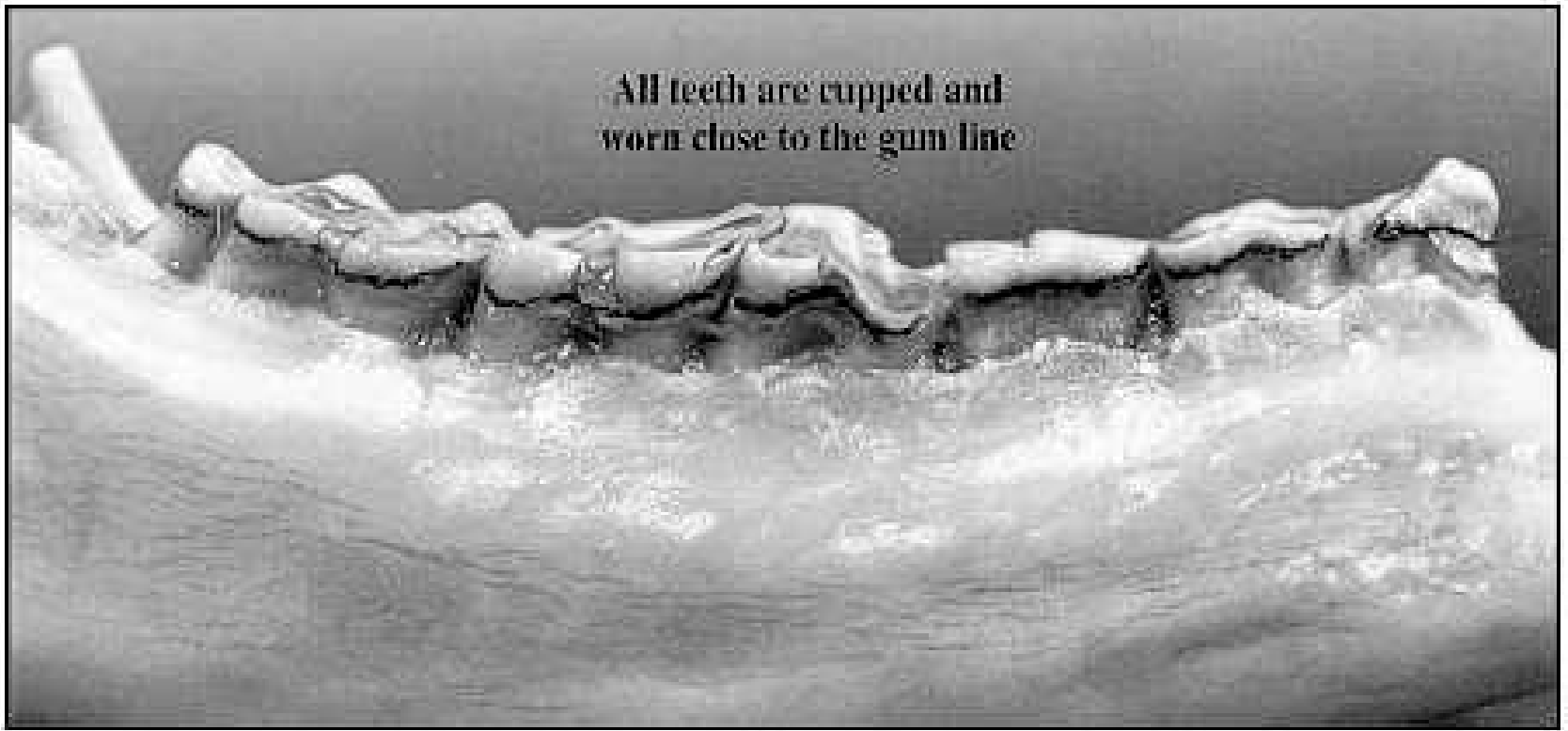


5.5 yrs +

- <2% or deer more than five years of age.
- Accurately aging these deer by tooth wear is usually more of a guessing game than a science.
- In general, deer close to 5-1/2 years of age will show considerable wear on the premolars, and the first cusp of the fourth cheek tooth (first molar) will be dished out or show signs of "cupping."

9-1/2; Years:

By 9-1/2; years, all cheek teeth are cupped and worn nearly to the gum line.



9 1/2 Years

Review

- 1.5 : Tooth 3- milk tooth with three cusps
Tooth 6- not fully erupted
- 2.5: Tooth 3- permanent 2 cusp
Tooth 4- Enamel=Dentine
Tooth 6- Back cusp is sharp and pointed
- 3.5: Tooth 4-Dentine>Enamel
Tooth 6- back cusp worn flat
- 4.5: Tooth 4-Dentin 2x Enamel
Tooth 6- Back cusp slopes downward
- 5.5: Tooth 4-Dentin 2x Enamel
Tooth 5- Dentin 2x Enamel
Tooth 6- Dentin > Enamel
- 6.5: Tooth 4- Dished out
Tooth 5- Small enamel ridge in center
Tooth 6- Small enamel ridge in center
- 7.5: Tooth 4- Worn Smooth
Tooth 5- Worn Smooth
Tooth 6- Small enamel ridge in center
- 8.5: All teeth worn smooth