

**List of recovered species at the Hot Springs Mammoth Site
(85 species on January 2008)**



Plants	Mollusks	Insects	Vertebrates	Total
Thallophyta (algae) – 1 Bryophytae (mosses) -3 Pteridophytae (ferns) – 1 Gymnospermae (conifers) – 5 Angiospermae (flowering plants): Trees/bushes – 9 Grasses/herbs - 15	Pelecypoda (bivalves) – 7 Pulmonata (terrestrial) - 11	Diptera – 2 Coleoptera - 1	Pisces - 1 Amphibia – 2 Aves – 2 Mammalia - 25	
34	18	3	30	85

Scientific name (Common name)

Reference

Plantae (Plant Kingdom)

Thallophyta (algae Division)

Class Bacillarieae (Diatoms)

Family unidentified

Species I (unidentified)

Dr. M. Potapova (pers. comm., 2001)

Curator of Diatom Herbarium, Academy of Natural Sciences, Philadelphia, PA

Bryophytae (Mosses and Liverworts Division)

Family Lycopodiaceae (Club mosses)

Lycopodium sp. (Club moss)

Mead, Hevly, & Agenbroad, 1990, 1994

Family Selagenellaceae (Little club mosses)

Selaginella sp. (Fern)

Mead, Hevly, & Agenbroad, 1990, 1994

Family Isoetaceae (Quilworts)

Isoetes sp. (Quilwort)

Mead, Hevly, & Agenbroad, 1990, 1994

Pteridophyta (Ferns Division)

Species I (unidentified)

Mead, Hevly, & Agenbroad, 1990, 1994

Spermatophyta (Seed-bearing plants Superdivision)

Coniferophyta (Conifer Division)

Gymnospermae (Gymnosperms Subdivision)

Family Pinaceae

Pinus sp. (Pine)

Mead, Hevly, & Agenbroad, 1990, 1994

Larix sp. (Larch)

Mead, Hevly, & Agenbroad, 1990, 1994

Picea sp. (Spruce)

Mead, Hevly, & Agenbroad, 1990, 1994

Abies sp. (Fir)

Mead, Hevly, & Agenbroad, 1990, 1994

Family Cupressaceae (Redwood)

Tuja ?/*Juniperus* (Cedar?/Juniper)

Mead, Hevly, & Agenbroad, 1990, 1994

Angiospermae (Flowering Plants Subdivision)

Trees/bushes

Family Salicaceae (Willows)

Salix sp. (willow)

Mead, Hevly, & Agenbroad, 1990, 1994

Family Betulaceae (Birches/Alders)

Alnus sp. (Alder)

Mead, Hevly, & Agenbroad, 1990, 1994

<i>Betula</i> sp. (Birch)	Mead, Hevly, & Agenbroad, 1990, 1994
Family Fagaceae (Beeches)	
<i>Quercus</i> sp. (oak)	Mead, Hevly, & Agenbroad, 1990, 1994
Family Juglandaceae (Walnuts)	
<i>Juglans</i> sp. (Walnut)	Mead, Hevly, & Agenbroad, 1990, 1994
<i>Populus</i> sp. (Aspen/Poplar/Cottonwood)	Mead, Hevly, & Agenbroad, 1990, 1994
Family Ulmanaceae (Elms)	
<i>Celtis</i> sp. (Hackberry)	Mead, Hevly, & Agenbroad, 1990, 1994
Family Urticaceae (Nettles)	
<i>Ulmus</i> sp. (Elm)	Mead, Hevly, & Agenbroad, 1990, 1994
Family Oleaceae (Olives)	
<i>Fraxinus americana</i> (White ash)	Mead, Hevly, & Agenbroad, 1990, 1994
Grassess/herbs	
Family Ranunculaceae (Crow-foot)	
<i>Ranunculus</i> sp. (Buttercup)	Mead, Hevly, & Agenbroad, 1990, 1994
Family Chenopodiaceae (Goosefoot)	
<i>Amaranthus</i> sp. (Pigweed)	Mead, Hevly, & Agenbroad, 1990, 1994
Family Polygonaceae (Smart weeds)	
<i>Polygonum</i> cf. <i>P. persicaria</i> (Lady's thumb)	Mead, Hevly, & Agenbroad, 1990, 1994
Family Rosaceae (Roses)	
Species I (unidentified)	Mead, Hevly, & Agenbroad, 1990, 1994
Family Brassicaceae (Mustards)	
Species I (unidentified)	Mead, Hevly, & Agenbroad, 1990, 1994
Family Saxifragaceae (Saxifrage)	
Species I (unidentified)	Mead, Hevly, & Agenbroad, 1990, 1994
Family Haloragaceae (Milfoils or Parrot feathers)	
<i>Myriophyllum</i> sp. (Milfoil)	Mead, Hevly, & Agenbroad, 1990, 1994
Family Apiaceae (Parsley)	
Species I (unidentified)	Mead, Hevly, & Agenbroad, 1990, 1994
Order Tubiflorae (Asterids)	
Species I (unidentified)	Mead, Hevly, & Agenbroad, 1990, 1994
Family Asteraceae (Sunflower)	
Subfamily Liguliflorae	
Species I (unidentified)	Mead, Hevly, & Agenbroad, 1990, 1994
Family Acoraceae (Sweet flags)	
<i>Acorus</i> sp. (Sweet flag)	Mead, Hevly, & Agenbroad, 1990, 1994
Family Potamogetonaceae (Pond weeds)	
<i>Potamogeton</i> sp. (Pond weed)	Mead, Hevly, & Agenbroad, 1990, 1994
Family Cyperaceae (Sages)	
Species I (unidentified)	Mead, Hevly, & Agenbroad, 1990, 1994
Family Poaceae (Grasses)	
<i>Artemisia</i> sp. (Sagebrush)	Mead, Hevly, & Agenbroad, 1990, 199
cf. <i>Ambrosia</i> sp. (Ragweed)	Mead, Hevly, & Agenbroad, 1990, 1994

Animalia (animal Kindom)

Class **Gastropoda** (Snails)

Order Pelecypoda (Bivalves)

Family Sphaeriidae

Pisidium castertanum

Pisidium compressum

Pisidium obtusale

Pisidium walkeri

Jass et al, 2002

Mead et al. 1994; Jass et al., 2002

Mead, 1978; Mead et al. 1994;

Jass et al., 2002

Mead, 1978; Mead et al. 1994;

Jass et al., 2002

Family Lymnaeidae

Fossaria parva

Fossaria cf. dallia

Fossaria sp.

Jass et al., 2002

Mead et al. 1994; Jass et al., 2002

Mead, 1978; Jass et al., 2002

Order Pulmonata (Freshwater/terrestrial snails)

Family Physidae

Physella sp.

Mead, 1978; Mead et al. 1994;

Jass et al, 2002

Family Planorbidae

Gyraulus parvus

Mead, 1978; Mead et al. 1994;

Jass et al, 2002

Gyraulus sp.

Jass et al, 2002

Family Pupillidae

Columella simplex

Jass et al, 2002

***Columella columella alticola*

Jass, 2003

***Pupilla muscorum*

Mead et al., 1994; Jass et al, 2002

Vertigo modesta

Jass et al., 2000; Jass et al., 2002

Family Valloniidae

Vallonia gracilicosta

Mead et al., 1994; Jass et al., 2002

Family Succineidae

Catinella sp.

Jass et al, 2002

Family Discidae

Discus sp.

Jass, 2003

Family Limacidae

***Deroceras leave* (slug)

Mead et al. 1994; Jass et al., 2002

Class Insecta (Insects)

Order Diptera (Flies)

Species I (adult; unidentified)

Agenbroad, 1991

(?) Order Diptera

Species II (puparium; unidentified)

Potapova, 2002

Order Coleoptera (Beetles)

Family (?) Carabidae

(Ground beetles)

Species III (forewing; unidentified)

Potapova, 2002

Class Osteichthyes (Bony fish)

Order Cypriniformes (Minnow/shiner)

Genus et species I indeterminate

Mead, 1994

Mead, 1994

Class Amphibia (Amphibians)

Order Anura (Tailless amphibians)

Family Bufonidae (Toads)

Bufo cognatus (Great Plains toad)

Mead, 1994

Bufo woodhousei (Woodhouse toad)

Mead, 1994

Class Aves (Birds)

Order/Family/Genus indeterminate

Species indet. I (feather imprints of medium-sized bird; unidentified)

Agenbroard, 1994

Czaplewski & Mead, 1994

Species indet. II (track of small-sized bird; unidentified)

Manning, Falkenham, Agenbroard, & Thompson, 2007

Class Mammalia (Mammals)

Order Insectivora (Insectivores)

Family Soricidae (Shrews)

Sorex cinereus (Masked shrew)

Potapova, 2004

Family Talpidae (Moles)

Scalopus aquaticus (Eastern mole) HSMS

Czaplewski & Mead, 1994

Order Lagomorpha (Pikas, Rabbits, Hares)

Family Leporidae (Hares and Rabbits)

Sylvilagus sp. indet. (Cottontail rabbit)

Czaplewski & Mead, 1994

Mead et al., 1996

Lepus cf. *americanus*

Mead, 1996

Lepus cf. *townsendii*

(White-tailed jackrabbit)

Czaplewski & Mead, 1994

Order Rodentia (Rodents)

Family Sciuridae (Squirrels)

***Spermophilus* cf. *elegans/richardsonii*
(Wyoming/Richardson's ground squirrel)

Czaplewski, 1994

Spermophilus cf. *tridecemlineatus*
(13-lined ground squirrel)

Czaplewski & Mead, 1994

Cynomys (***Leucocrossuromys*) sp.
(White-tailed prairie dog)

Czaplewski & Mead, 1994;
Mead et al., 1994

Family Geomyidae (Pocket gophers)

Thomomys cf. *talpoides*

(Northern pocket gopher)

Czaplewski & Mead, 1994

Family Cricetidae (Hamsters and Voles)

Peromyscus cf. *maniculatus* (Deer mouse)

Czaplewski & Mead, 1994

Neotoma cinerea (Bushy-tailed woodrat)

Czaplewski & Mead, 1994

***Phenacomys* cf. *intermedius*
(Heather vole)

Czaplewski & Mead 1990,1994

Microtus sp. (vole)

Bjork, 1978;

Czaplewski & Mead, 1990, 1994

Order Carnivora (Carnivores)

Family Mustelidae (Weasels)

***Mustela vison* (Mink)

Czaplewski & Mead, 1994

Taxidea taxus (American badger)

Mead, 1996

Family Canidae (Dogs)

** <i>Canis lupus</i> (Grey wolf)	Czaplewski & Mead, 1994
<i>Canis latrans</i> (Coyote)	Czaplewski & Mead, 1994
Family Ursidae (Bears)	
* <i>Arctodus simus</i>	Agenbroad & Mead, 1986
(Giant short-faced bear)	Baryshnikov, Agenbroad & Mead, 1994
Family Felidae (Cats)	
(?) * <i>Panthera leo atrox</i> (American lion)	Agenbroad, 2003
Order Artiodactyla (Even-toed ungulates)	
Family Camelidae (Camels)	
* <i>Camelops hesternus</i>	Mead et al., 1996
(Yesterday's camel)	
* <i>Hemiauchenia</i> sp. (Llama)	Agenbroad, 1996
Family Antilocapridae (Pronghorns)	
<i>Antilocapra americana</i> (Pronghorn)	Mead & Agenbroad, 1994
* <i>Euceratherium collinum</i> (Shrub ox)	Mead & Agenbroad, 1994
Order Proboscidea (Elephants)	
Family Elephantidae	
* <i>Mammuthus columbi</i>	Agenbroad, 1984, 1990, 1994
(Columbian mammoth)	Agenbroad & Laury, 1979
* <i>Mammuthus primigenius</i>	Agenbroad et al., 1994
(Woolly mammoth)	

* = extinct species

** = taxon (species/subspecies) is not recorded in the modern fauna of the Black Hills Physiographic Province