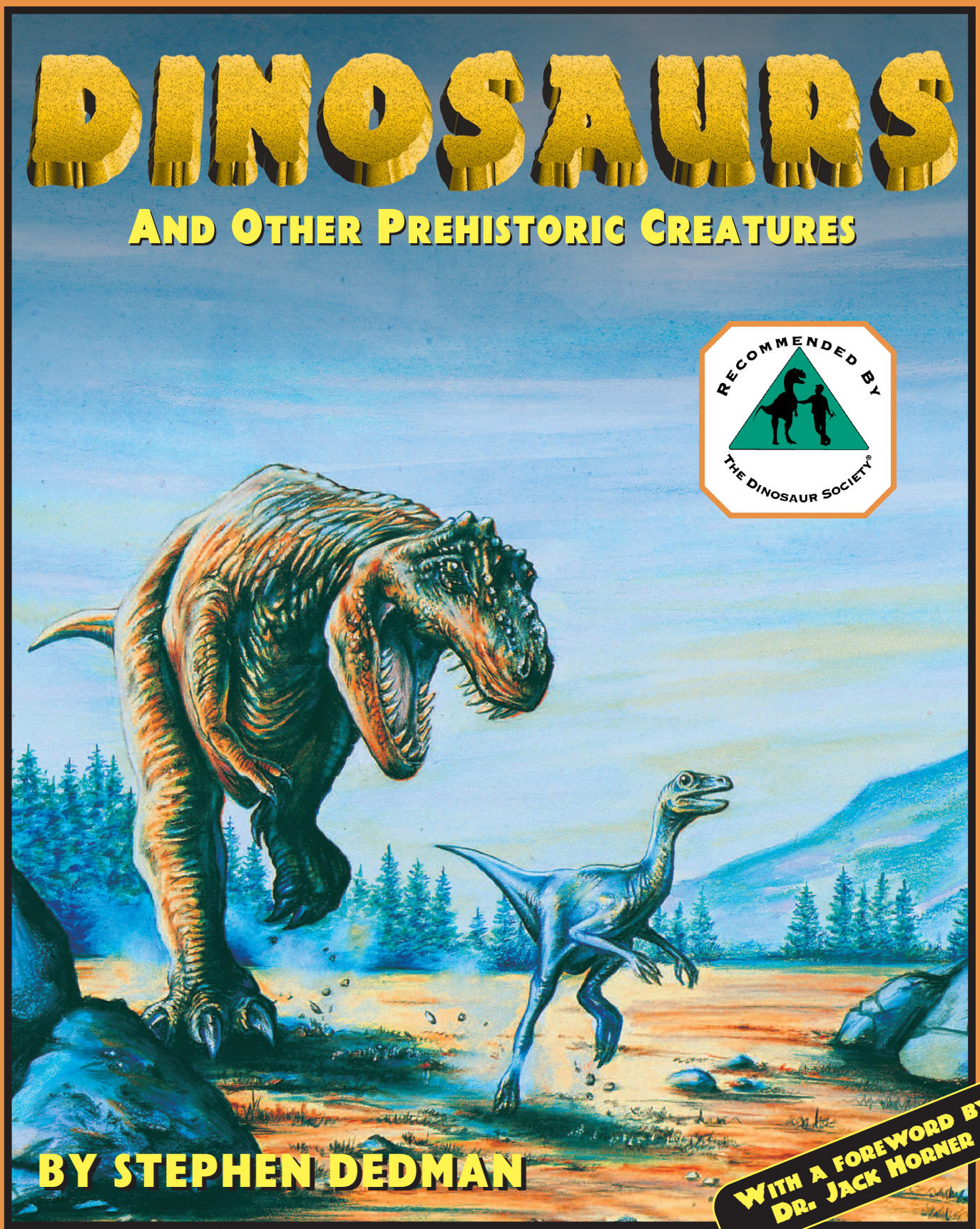
GURPS®

DINOSAURS

And Other Prehistoric Creatures

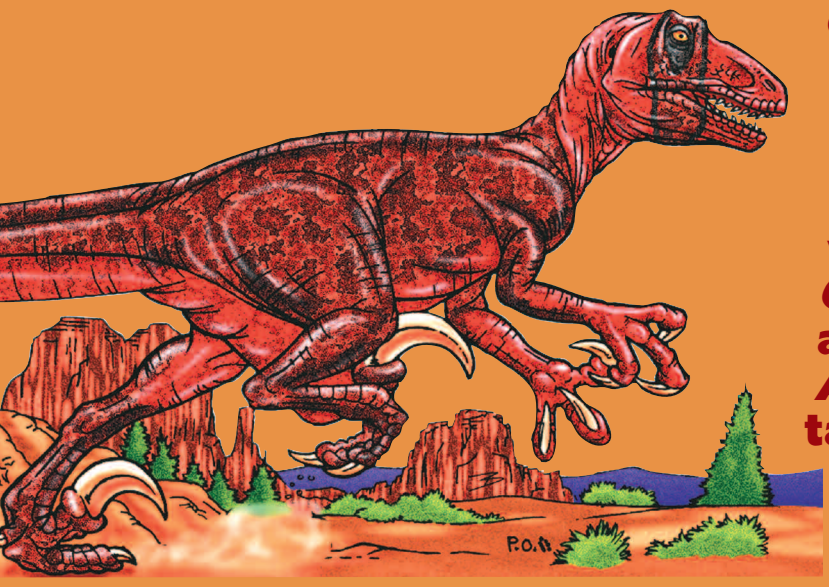


BY STEPHEN DEDMAN

With a foreword by Dr. Jack Horner

STEVE JACKSON GAMES

TYRANT KINGS!



***Giganotosaurus*, the largest carnivore ever to walk the Earth . . . Packs of *Deinonychus*, the "terrible claws" . . . *Triceratops*, armed with shield and spears . . . 65-ton *Brachiosaurus*, tall as a four-story building . . . *Ankylosaurus*, the living tank . . . the fearsome *Tyrannosaurus rex* . . . cunning *Troodons* . . . the deadly *Utahraptor* . . .**

Their fossil bones inspired myths of dragons and other monsters. Their images still terrify us today. Visit their world – or have them visit yours.

***GURPS Dinosaurs* includes:**

- **A detailed bestiary of the world before human history, with more than 100 dinosaurs, plus pterosaurs, sea monsters, other reptiles, and prehistoric birds and mammals.**
- **A chronology of life on Earth, from the Cambrian explosion to the Ice Ages.**
- **Character creation and detailed roleplaying information for early hominids and humans, from *Australopithecus* to Cro-Magnon, including advantages, disadvantages and skills.**
- **Maps and background material for the world of the dinosaurs.**
- **Plot and adventure ideas for Time Travel, Supers, Horror, Cliffhangers, Atomic Horror, Space, Survivors, Fantasy, Cyberpunk, and even caveman slapstick campaigns!**

Written by Stephen Dedman
Edited by Steve Jackson, Lillian Butler and Susan Pinsonneault
Cover by Paul Koroshetz
Illustrated by Scott Cooper, Russell Hawley and Pat Ortega

STEVE JACKSON GAMES

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By Stephen Dedman

Additional Material by Kirk Tate, from *GURPS Ice Age*

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Illustrated by Scott Cooper, Russell Hawley and Pat Ortega

Cartography by Marion Anderson and Bruce Popky

GURPS System Design by Steve Jackson

Scott Haring, Managing Editor

Sean Punch, ***GURPS*** Line Editor

Page Layout and Typography by Bruce Popky

Interior and Color Production by Bruce Popky, Derek Pearcy, Byron Taylor and Brent Ferguson

Print Buying by Monica Stephens

Art Direction by Bruce Popky and Lillian Butler

Claudia Smith, Sales Manager

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Playtesters: Marion Anderson, Albert Griego, Lene Griego, Daniel Griego, Robert Griego, Chris Hood, Patrick Longe, Linda Longe, Bobby J. Mestepey, Mike Murray, Glen Yarbrough, Tony Ridlon, Mike Fox, Virginia L. Nelson.

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FOREWORD

BY DR. JACK HORNER

I am a paleontologist. So I was a bit surprised when I was asked to write an introduction to a roleplaying game, even one on dinosaurs. "What's that?" I asked, as I opened the envelope containing the manuscript. I was quickly absorbed in a fascinating trip based on paleontological fact, with some interesting side trips into pure speculation.

GURPS Dinosaurs is an integration of scientific detail, derived from the professional and popular writings of paleontologists, with the imaginative speculations of its author, Stephen Dedman. While ***GURPS Dinosaurs*** won't get you through your Paleo 101 final, it will allow you to travel through time into environments inhabited by long-extinct species fierce and gentle, huge and small.

As a dinosaur paleontologist and evolutionary biologist, my job is to gather the evidence which allows us to better visualize extinct organisms, their ecologies, and how they lived their lives. And one thing I've learned is how organisms adapt to their environments, how the struggle for survival can only be described as a merciless act of aggression which yields a progression of successes.

It is, of course, evolution which allows organisms to adapt to these particular environments. Leaving the environment in which you evolved and traveling to another can only be described as a dangerous venture. Entering an environment other than the one in which you originally evolved makes you a competitive alien, regardless of intent. You have invaded the ecological space of another organism which, by definition, is better adapted to this environment.

Interestingly, the farther back in time you go, the less chance there is of surviving, because the farther back you venture, the less adapted you are to the environment. (Of course, this scenario also works in reverse. If you decide to bring presently-extinct organisms forward in time, you must keep in mind their survival odds are *very* low. This is especially true if the organism was driven into extinction by another, more competitive species.)

There are other problems with time travel as well, some of which would require tremendous preparation. For example, consider placing the time travel device in your back yard and attempting a trip back 100 million years. What altitude was the surface of the ground? It could have been under a mile or so of rock, a thousand feet in the air, or under water. Was your back yard even part of a continent 100 million years ago? Continents move! Before striking out to visit the Jurassic Period, I would strongly suggest learning as much as possible about geology and paleogeography.

Regardless of whether you choose an actual creature from the past or create a new one using the data presented by Mr. Dedman, you have surely entered an extraordinary realm, a realm where the chronological horizons exceed a billion years, and the only geographic limitation is the entire planet. Learn about the history of the ancient worlds and you will be, like myself, on a fantastic voyage in time.

John R. Horner
Bozeman, MT
Dec. 12, 1995

INTRODUCTION

Though their name has become associated with everything unwieldy and obsolete, from bankrupt superpowers to last year's computers, the tale of the dinosaurs is one of the greatest success stories ever. Mammals evolved alongside the earliest dinosaurs and, for more than 165 million years, survived by being too small for the "terrible lizards" to bother chasing.* Long before the dagger-tooths and dire wolves, there were five-ton carnosaurs and man-sized raptors. Before the mammoths and woolly rhinos, there were sauropods as long as blue whales, elephant-sized hornfaces, armored ankylosaurs, and huge herds of hadrosaurs. Not until the dinosaurs had been gone for 63 million years did hominids start banging rocks together.

After millenia of their bones inspiring myths of dragons and other monsters, dinosaurs were rediscovered in the mid-19th century (the word "dinosaur" is some 153 years old as I write), and quickly bullied their way into popular culture. Now, despite being extinct, their commercial dominion is enormous. We should look so good after 65 million years.

This book is a bestiary and chronology of the "interesting and extinct," from the trilobites of the Paleozoic to the early tool-users of the Pleistocene. It is primarily intended as an aid for the ***GURPS Time Travel*** GM who wishes to send PCs to any era in prehistoric Earth, but it is also a source of monsters and lost worlds for any genre – ***Supers, Space, Atomic Horror, Fantasy, Cliffhangers,*** even ***Cyberpunk*** and ***Old West***. Chapter 9 gives campaign and adventure suggestions for all of these worlds and more, including stone age campaigns – realistic, fractured history, and slapstick. Chapters 9 and 10 give character creation and roleplaying information for early hominids and humans, with a brief guide to shamanic magic. Also included are a bibliography and filmography, for serious dinophiles.

I would like to thank the Dinosaur Society for their help with this project and their sponsorship of dinosaur research and education. Thanks also to the paleontologists, museum staff, writers, and film-makers (some of them, anyway) for fueling a life-long fascination with the "terrible lizards" and other prehistoric creatures.

– *Stephen Dedman*

About the Author

Stephen Dedman has been an education officer and used dinosaur salesman for the Western Australian Museum, the manager of a science fiction bookshop, an editorial assistant for *Australian Physicist*, and an experimental subject. His other writing credits include ***GURPS Space Atlas 4, GURPS Martial Arts Adventures,*** a dinosaur bestiary for ***Car Wars,*** and two ***Villains and Vigilantes*** adventures. His short stories have appeared in *Fantasy & Science Fiction, Asimov's Science Fiction, Science Fiction Age,* and several anthologies. He lives in Perth with his wife, two saber-clawed cats, and a large collection of plastic dinosaurs.

*Although "terrible lizard" is the common translation of "dinosaur," it should be noted that when Richard Owen coined the word in his 1842 text, *British Fossil Reptiles*, he gave the derivation as "fearfully great lizards."

About GURPS

Steve Jackson Games is committed to full support of the ***GURPS*** system. Our address is SJ Games, Box 18957, Austin, TX 78760. Please include a self-addressed, stamped envelope (SASE) any time you write us! Resources now available include:

Pyramid. Our bimonthly magazine includes new rules and articles for ***GURPS,*** as well as information on our other lines: ***Car Wars, Toon, INWO, Ogre Miniatures*** and more . . . and, of course, the new ***Dino Hunt***! It also covers top releases from other companies — ***Traveller, Call of Cthulhu, Shadowrun***, and many more.

New supplements and adventures. We're always working on new material, and we'll be happy to let you know what's available. A current catalog is available for an SASE.

Errata. Everyone makes mistakes, including us — but we do our best to fix our errors. Up-to-date errata sheets for all ***GURPS*** releases, including this book, are always available from SJ Games; be sure to include an SASE with your request.

Q&A. We do our best to answer any game question accompanied by an SASE.

Gamer input. We value your comments. We will consider them, not only for new products, but also when we update this book on later printings!

Online. For those who have home computers, Illuminati Online supports SJ Games with discussion areas for many games, including ***GURPS***. Here's where we do a lot of our playtesting! It's up 24 hours per day at 512-448-8950, at up to 28.8K baud (28.8 users should dial directly to 512-448-8988) — or telnet to io.com. Give us a call! And visit us on the World Wide Web at http://www.io.com/sjgames/. We also have conferences on Compuserve, GEnie, and America Online.

Page References

Rules and statistics in this book are specifically for the ***GURPS Basic Set***, Third Edition, Revised. Any page reference that begins with a B refers to the ***GURPS Basic Set*** — e.g., p. B102 means p. 102 of the ***GURPS Basic Set***, Third Edition, Revised. A reference that begins with CI indicates ***GURPS Compendium I: Character Creation***. A reference that begins with TT indicates ***GURPS Time Travel.***

TIMELINE

MYA (millions of years ago)

4,600 PRE-CAMBRIAN ERA

4,600 Earth coalesces from gas ring and begins to cool.
3,800 First life on Earth.
3,600 First stromatolites (blue-green algae), oldest known fossils.
1,200 Earth develops year-round oxygen atmosphere and ozone layer.
700 Invention of sex.
680 Ediacaran fauna: first known multicellular life.
600 First animals with exoskeletons.

590 PALEOZOIC ERA

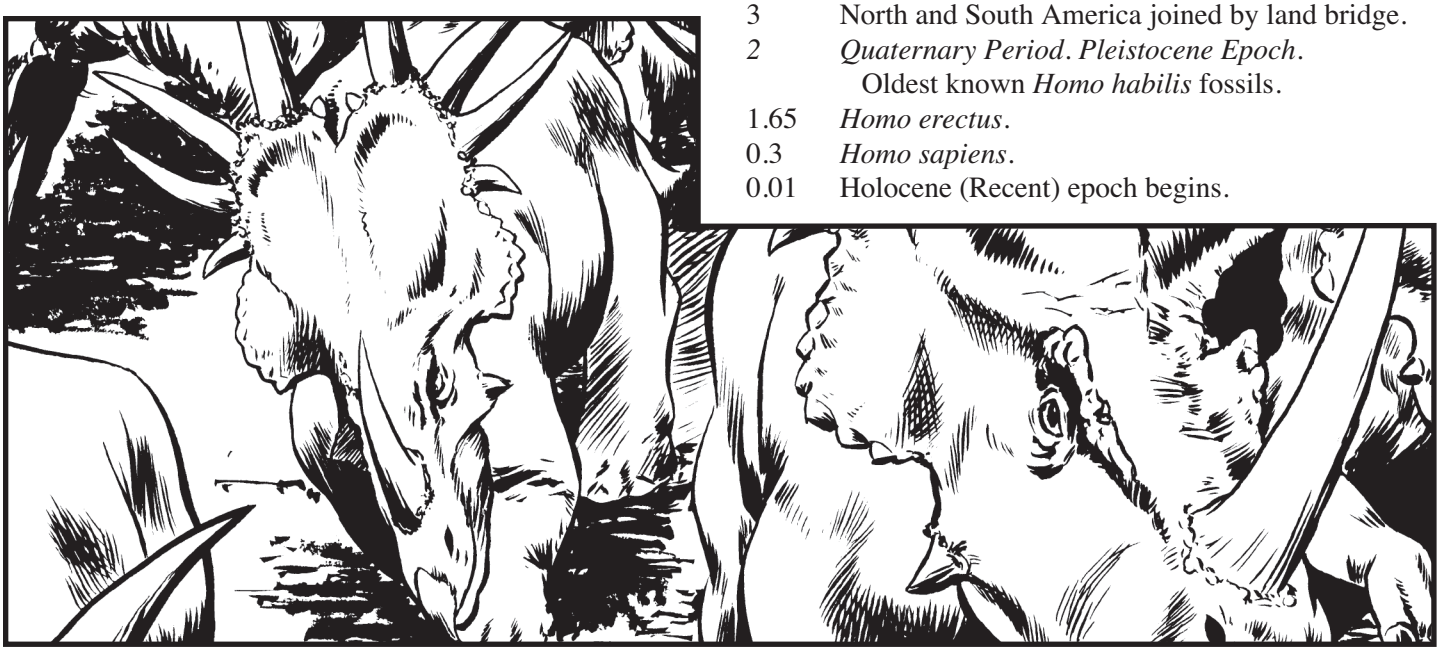
590 *Cambrian Period*.
505 *Ordovician Period*. First land plants: club mosses.
438 *Silurian Period*.
408 *Devonian Period*. First spiders and wingless insects.
370 First amphibians.
360 *Mississippian (Lower Carboniferous) Period*.
320 *Pennsylvanian (Upper Carboniferous) Period*. First conifers, first winged insects (mayflies).
300 First reptiles.
286 *Permian Period*.
250 Land masses begin to merge to create Pangaea.

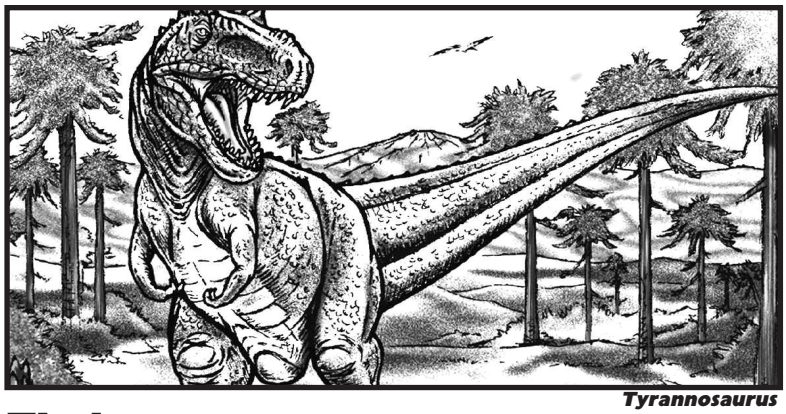
248 MESOZOIC ERA

248 *Triassic Period*.
230 First dinosaurs, first mammals.
213 *Jurassic Period*. First frogs.
150 Pangaea is splitting into northern Laurasia and southern Gondwana.
140 First flowers.
145 *Cretaceous Period*.
100 Continents continue to separate.
80 First snakes (non-venomous constrictors).
70 First primates (*Purgatorius*) and carnivorous mammals (*Miacis*).

65 CENOZOIC ERA

65 *Tertiary Period*.
65 *Paleocene Epoch*. First whales.
55 *Eocene Epoch*. First bats.
50 India collides with Asia, producing the Himalayas.
40 First cats.
38 *Oligocene Epoch*.
25 *Miocene Epoch*. The first apes appear.
22 First venomous snakes.
15 Morocco collides with Spain, turning the Mediterranean into a desert.
5 *Pliocene Epoch*. The Mediterranean is flooded.
4 First known hominids (*Ardipithecus*).
3 North and South America joined by land bridge.
2 *Quaternary Period. Pleistocene Epoch*. Oldest known *Homo habilis* fossils.
1.65 *Homo erectus*.
0.3 *Homo sapiens*.
0.01 Holocene (Recent) epoch begins.





Tyrannosaurus

Timimus

Time: Early Cretaceous (113-97.5 mya)
Range: Australia **Habitats:** S, F
Discovered: 1993

Timimus is a 10' long birdlike dinosaur, slightly smaller than *Dromiceiomimus* but otherwise similar in appearance and habits. Treat as *Dromiceiomimus* in all other respects.

Troodon

ST: 14-17 **Speed/Dodge:** 11/8 **Size:** 2-3
DX: 16 **PD/DR:** 1/1 **Wt:** 30-50 lbs.
IQ: 4-5 **Damage:** 1d+1 imp
HT: 13/12-14 **Reach:** C, 1 **Habitats:** P, F, S
Time: Late Cretaceous (75-65 mya)
Range: N. America, Asia **Discovered:** 1856

Troodon ("wounding tooth") is a man-tall, slender, nimble-fingered, rather birdlike omnivorous dinosaur. It resembles *Deinonychus* in having a razor-sharp sickle-like claw on each hind foot which it keeps off the ground, but is more closely related to the ornithomimids. It also has the largest brain-to-body-mass ratio of any Cretaceous creature, including the mammals it eats.

Troodon has huge eyes, turned forward like those of a human or cat. It may be a nocturnal hunter, stealthily taking eggs and young from herbivore nesting colonies while the adults are asleep (Night Vision, Vision-18, Stealth-16).

Canadian paleontologist Dr. Dale Russell chose *Troodon* as the most likely candidate for evolving into an intelligent "dinosauroid" – an australopithecine-sized biped with a large head, an erect stance, three-fingered hands with opposable thumbs, and no tail.

Tyrannosaurus

ST: 100-150 **Speed/Dodge:** 17/7# **Size:** 13+
DX: 14 **PD/DR:** 2/3 **Wt:** 4-6 tons
IQ: 3 **Damage:** 5d+2 imp
HT: 15/50-80 **Reach:** C, 1, 2 **Habitats:** P, F
Time: Late Cretaceous (68-65 mya)
Range: N. America, Asia **Discovered:** 1902

Tyrannosaurus rex ("King of the Tyrant Lizards") is one of the most famous of dinosaurs, thanks largely to its major roles in films including *Fantasia*, *Jurassic Park* and *Caveman*. It was also one of the most widespread, and one of the last to become extinct. It grows up to 40' long, and stands 20' high; its massive skull (DR 4) is over 4' long, with 6" saw-edged teeth, and its jaw is well-muscled, allowing it to rip off 500 pounds of meat in a bite. Its arms are less than three feet long, ending in two claws (not used in combat), and have ST 14-15. Its long and powerful hind legs and bird-like feet let it outrun most herbivores, and may also be used to pin down small or weak prey (Contest of ST to pin; does 3d cutting damage). It bites for 5d+2 impaling damage.

Tyrannosaurus has well-developed stereoscopic vision and good hearing, and probably an excellent sense of smell; make all sense rolls at 14.

A huge *Tyrannosaurus* skeleton found in South Dakota in 1990 showed claw and tooth wounds that had healed, suggesting that *T. rex* is an aggressive hunter and killer, not merely a scavenger. It preys mostly on hadrosaurs and ceratopsians, and often chases smaller theropods away from their kills as lions do to hyena. *Tyrannosaurus* travel in small family groups, at least for part of the year.

Estimates of *Tyrannosaurus* running speeds vary from a conservative 15 mph to Bob Bakker's 50 mph (Move 24!). Lessem and Horner, in *The Complete T. Rex*, point out that a *Tyrannosaurus* running at 25 mph (Move 12) can catch any Cretaceous herbivore big enough to bother with, and that moving any faster increases the risk of falling and being unable to get up again. Jim Farlow has calculated that a *Tyrannosaurus* might survive a fall at 34 mph, but not 45 mph. As a 20' tall *Tyrannosaurus* falling onto hard ground would take 6d-12 damage, GMs may assume that *Tyrannosaurus* can move faster than 34 mph (Move 17), but rarely do.

Utahraptor

ST: 30-35 **Speed/Dodge:** 13/7 **Size:** 6-7
DX: 15 **PD/DR:** 1/1 **Wt:** 600-800 lbs.
IQ: 3-4 **Damage:** 3d+1 imp#
HT: 15/30 **Reach:** C, 1, 2 **Habitat:** P
Time: Early Cretaceous (125-119 mya)
Range: N. America **Discovered:** 1991

Utahraptor is very like *Deinonychus* in all respects but size; 20' long and standing 8' tall, with 15" toe claws, it is the perfect dinosaur for a ***Horror*** adventure – a killing machine small enough to hide in alleys, sewers and subways.

Utahraptor's killing claw is held up off the ground to keep it sharp, and does 3d+1 impaling damage at up to 2-hex range. Against small opponents, it stands on one leg to kick with the other; large prey are brought down with a flying strike doing 4d-1 impaling damage. A small pack of *Utahraptor* can easily disembowel the largest sauropods.

Velociraptor

ST: 7-9 **Speed/Dodge:** 15/7 **Size:** 1-2
DX: 15 **PD/DR:** 0/1 **Wt:** 35-40 lbs.
IQ: 3-4 **Damage:** 1d-1 imp
HT: 12/5-6 **Reach:** C, 1 **Habitats:** P, F
Time: Late Cretaceous (85-80 mya)
Range: Asia **Discovered:** 1924

Velociraptor ("swift robber") is a 6' long predator. Like the slightly larger *Deinonychus,* to which it is related, it has a large, sickle-shaped claw on each hind foot, which is held up off the ground to keep it sharp. This "raptor claw" does 1d+1 impaling damage at close or 1-hex range; *Velociraptor* attacks by grappling

Rhamphosuchus

ST: 48-58 **Speed/Dodge:** 8/6# **Size:** 14-17
DX: 13 **PD/DR:** 3/4# **Wt:** 5-10 tons
IQ: 3 **Damage:** 3d-2 cut#
HT: 14/40-50 **Reach:** C# **Habitat:** FW
Time: Pliocene (5-2 mya)
Range: India

Rhamphosuchus is a gigantic gavial which reaches a length of 50', and preys on smaller crocodiles and large fish, though it may also ambush land animals that come to the rivers to drink. Treat it as a modern crocodile (p. 22) in most respects, with a tail-whip of reach 3.

Sabertooth (Smilodon)

ST: 26-32 **Speed/Dodge:** 8/6 **Size:** 2
DX: 12 **PD/DR:** 1/1 **Wt:** 400-600 lbs.
IQ: 4 **Damage:** 2d+1 imp
HT: 14/20-24 **Reach:** C **Habitats:** P, F, D
Time: Pliocene – Late Pleistocene (5 mya-10,000 ya)
Range: America **Discovered:** 1868

The "sabertoothed tiger," *Smilodon,* is not closely related to tigers, or any other modern cat. It is powerfully built, rather like a lion, and despite its name, there is no evidence that it was (or wasn't) striped.

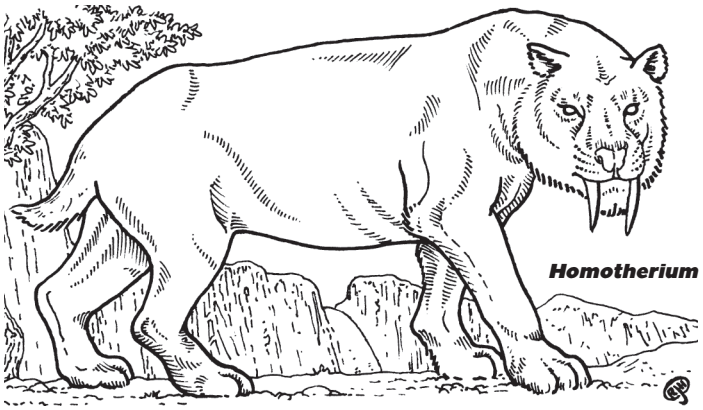
By cat standards, *Smilodon* has poor night vision and short legs. It hunts by daylight, ambushing its prey – mostly mammoths and mastodons – from cover, hanging on with its claws (1d+1 cutting) and then biting them repeatedly in the neck until they bled to death. *Smilodon* teeth are serrated, up to 11" long, and do extra damage for their ST – 2d+1 impaling in close combat. Like picks, they can get stuck (p. B96), or break if they hit bone.

More than 2,000 *Smilodon* skeletons have been recovered from the La Brea tar pits, suggesting that (unlike cave lions) they weren't smart enough to avoid such traps, much less compete for food with humans. Early humans hunted sabertooth, and contributed to their extinction by wiping out their prey, the mammoths (both animals became extinct at roughly the same time). But *Smilodon* can't have been easy prey: human skulls have been found with sabertooth-sized holes in them.

Sabertooth

Scimitar Cat (Homotherium)

ST: 22-28 **Speed/Dodge:** 9/6 **Size:** 2-3
DX: 13 **PD/DR:** 2/2 **Wt:** 300-700 lbs.
IQ: 4 **Damage:** 1d+2 cut
HT: 15/20-24 **Reach:** C **Habitats:** M, P, F
Time: Early – Late Pleistocene (2 mya-14,000 ya)
Range: Africa, Asia, Europe, N. America



Homotherium

Homotherium is a strange-looking cat; its head is long and narrow, its neck long and thick, its tail very short, and its forelegs longer than its hind legs, giving it the sloping look of a hyena. Its claws are not fully retractile, and it has a flat-footed walk (unlike modern cats, which walk on their toes). It is a good runner, but a poor jumper, and too heavy for tree-climbing.

Its scimitar-like teeth have sharp serrated edges, and are used for slicing, not stabbing. It preys mostly on mammoth and mastodon calves: a mass grave of scimitar cats, found in a cave in Texas, included hundreds of mammoth milk teeth. Scimitar cats are gregarious like lions, and probably behaved similarly in most other respects.

Teratornis see p. 71

Terror Cat see p. 66

Thylacoleo

ST: 20-25 **Speed/Dodge:** 9/6 **Size:** 2
DX: 13 **PD/DR:** 1/1 **Wt:** 180-240 lbs.
IQ: 4 **Damage:** 1d+1 cut
HT: 15/14-17 **Reach:** C **Habitats:** P, F
Time: Pleistocene (1.8 mya-10,000 ya)
Range: Australia **Discovered:** 1859

Thylacoleo carnifex ("executioner marsupial lion") is a leopard-sized predator with long powerful legs, heavy (non-retractile) claws, and a short cat-like face. Its large, sharp-edged incisors give it a buck-toothed appearance and a vicious bite, doing 1d+1 cutting damage. Little is known of its habits, but it is probably a solitary hunter, stalking or chasing its prey – medium-sized marsupials – by day, holding on with its claws for 1d-1 cutting damage and biting in close combat. It may also be arboreal, preying on koalas and possum. Alternatively, it may use pack tactics to hunt large, slow marsupials like *Diprotodon*.

Wolves

Dire Wolf

ST: 13-16 **Speed/Dodge:** 7/6 **Size:** 1
DX: 12 **PD/DR:** 1/1 **Wt:** 150-200 lbs.
IQ: 4 **Damage:** 1d cut
HT: 13-17 **Reach:** C **Habitats:** P, M, A, F
Time: Pleistocene – Recent (2 mya-10,000 ya)
Range: N. America