Fastest animals

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This is a list of the **fastest animals** in the world, grouped by types of animal.

Contents

Fastest organism[edit]

The fastest land animal is the cheetah, which has a recorded speed of 109.4–120.7 km/h (68.0–75.0 mph).[1] The peregrine falcon is the fastest bird and the fastest member of the animal kingdom with a diving speed of 389 km/h (242 mph).[2] The fastest animal in the sea is the black marlin, which has a recorded speed of 129 km/h (80 mph).[3]

While comparing between various classes of animals, a different unit is used, body length per second for organisms. The fastest organism on earth, relative to body length, is the South Californian mite *Paratarsotomus macropalpis*, which has a speed of 322 body lengths per second.[4] The equivalent speed for a human running as fast as this mite would be 1,300 mph (2,092 km/h).[5] This is far in excess of the previous record holder, the Australian tiger beetle, *Cicindela eburneola*, the fastest insect in the world relative to body size, which has been recorded at 1.86 metres per second (6.7 km/h; 4.2 mph) or 171 body lengths per second.[6] The cheetah, the fastest land mammal, scores at only 16 body lengths per second [4] while Anna's hummingbird has the highest known length-specific velocity attained by any vertebrate

List of animals by speed

Rank	Animal	Maximum speed	Class	Notes
1	Peregrine falcon	389 km/h (242 mph)[2][7]	Flight-diving	The peregrine falcon is the fastest aerial animal, fastest animal in flight, fastest bird, and the overall fastest member of the animal kingdom. The peregrine achieves its highest velocity not in horizontal level flight, but during its characteristic hunting stoop. While stooping, the peregrine falcon soars to a great height, then dives steeply at speeds of over 200 mph (320 km/h).[2]
2	Golden eagle	240–320 km/h (150–200 mph)[*citation needed*]	Flight-diving	
3	White-throated needletail swift	169 km/h (105 mph)[8][9][10]	Flight	

List of animals by speed

Rank	Animal	Maximum speed	Class	Notes
4	Eurasian hobby	160 km/h (100 mph)[11]	Flight	Can sometimes outfly the swift
5	Mexican free-tailed bat	160 km/h (100 mph)[12]	Flight	It has been claimed to have the fastest horizontal speed (as opposed to stoop diving speed) of any animal.
6	Frigatebird	153 km/h (95 mph)[13]	Flight	The frigatebird's high speed is helped by its having the largest wing-area-to-body-weight ratio of any bird.
7	Rock dove(pigeon)	148.9 km/h (92.5 mph)[14]	Flight	Pigeons have been clocked flying 92.5 mph (148.9 km/h) average speed on a 400-mile (640 km) race.
8	Spur-winged goose	142 km/h (88 mph)[15]	Flight	
9	Black marlin	129 km/h (80 mph)	Swimming	A hooked black marlin has been recorded stripping line off a fishing reel at 120 feet per second (82 mph; 132 km/h).[3]
10	Gyrfalcon	128 km/h (80 mph)[*citation needed*]	Flight	
11	Grey-headed albatross	127 km/h (79 mph)[16][17][note 1]	Flight	
12	Cheetah	109.4–120.7 km/h (68.0–75.0 mph)[a]	Land	Fastest land-animal, fastest feline, the cheetah can accelerate from 0 to 96.6 km/h (60.0 mph) in under three seconds, though endurance is limited.[1]
13	Sailfish	109.19 km/h (67.85 mph)[*citation needed*]	Flight-swimming	
14	Anna's hummingbird	98.27 km/h (61.06 mph)[23]	Flight	
15[note 2]	Swordfish	97 km/h (60 mph)[*citation needed*]	Swimming	

List of animals by speed				
Rank	**Animal**	**Maximum speed**	**Class**	**Notes**
16	Pronghorn	88.5 km/h (55.0 mph)[b]	Land	
17	Springbok	88 km/h (55 mph)[28][29]	Land	
18[note 3]	Blue wildebeest	80.5 km/h (50.0 mph)[c]	Land	
19[note 3]	Lion	80.5 km/h (50.0 mph)[33]	Land	
20	Blackbuck	80 km/h (50 mph)[28][34]	Land	

Birds[edit]

See also: List of birds by flight speed

Animal	**Maximum recorded speed**	**Notes**
Peregrine falcon	389 km/h (242 mph)[2][7]	The peregrine falcon is the fastest bird, and the fastest member of the animal kingdom. When in its hunting dive, the stoop, it soars to a great height, then dives steeply at speeds of over 200 mph (320 km/h). However, it does not hold first place when travelling in level flight.
Golden eagle	240–320 km/h (150–200 mph)	In full stoop, a golden eagle can reach spectacular speeds of up to 240 to 320 kilometers per hour (150 to 200 mph) when diving after prey. Although less agile and maneuverable, the golden eagle is apparently quite the equal and possibly even the superior of the peregrine falcon's stooping and gliding speeds.
White-throated needletail	169 km/h (105 mph)[8][9][10]	The fastest-flying bird in flapping flight.
Eurasian hobby	160 km/h (100 mph)[11]	It can sometimes even outfly birds such as the swift when hunting.
Frigatebird	153 km/h (95 mph)[13]	The frigatebird's high speed is helped by its having the largest wing-area-to-body-weight ratio of any bird.
Rock dove(pigeon)	148.9 km/h (92.5 mph)[14]	Pigeons have been clocked flying 92.5 mph (148.9 km/h) average speed on a 400-mile (640 km) race.
Spur-winged goose	142 km/h (88 mph)[15]	
Red-breasted merganser	129 km/h (80 mph)[35]	

Gyrfalcon	128 km/h (80 mph)	
Grey-headed albatross	127 km/h (79 mph)[16][17][note 4]	
Anna's hummingbird	98.27 km/h (61.06 mph)[23]	The stated speed equals 276 body lengths per second, the highest known length-specific velocity attained by any vertebrate.
Ostrich	96.6 km/h (60 mph)[36]	The ostrich is the tallest and heaviest species of all living birds. Although its bulky body means that flying is out of the question, the ostrich has adapted to life on the ground with impressive agility. Ostriches are superb runners that can sprint at speeds of up to 45 mph (72 km/h)[37] on average, with a peak 60 mph (96.6 km/h) during short periods, with 12-foot (3.7 m) strides. This also makes the ostrich the fastest animal on two legs. The ostrich is also an endurance runner and can jog at 30 mph (48 km/h) for as long as half an hour.

1. ^ Sustained ground speed for approximately nine hours with no rest on high tailwinds during an Antarctic storm.
2. ^ Swordfish and ostrich have approximately equal average recorded speeds.
3. ^ Jump up to:[a] [b] The average recorded speeds of both blue wildebeest and lion are approximately equal.
4. ^ Sustained ground speed for approximately nine hours with no rest on high tailwinds during an Antarctic storm.

Reptiles[edit]

Animal	Maximum recorded speed	Notes
Central bearded dragon	40.23 km/h (25.00 mph)[38]	
Green Iguana	35.41 km/h (22.00 mph)[39]	Green Iguanas are the largest lizards to dwell in trees, and can move faster than the fastest snake can move along the ground.
Leatherback sea turtle	35.28 km/h (21.92 mph)[40]	Leatherback turtles have the most hydrodynamic body design of any sea turtle, with a large, teardrop-shaped body.
Black mamba	22.53 km/h (14.00 mph)[41]	
Komodo dragon	20.92 km/h (13.00 mph)[42]	Komodo dragons are also speedy reptiles. They can run briefly up to 13 mph (21 km/h) but prefer to hunt by stealth.[42]

Fish[edit]

Animal	Maximum recorded speed	Notes
Black marlin	129 km/h (80 mph)[*citation needed*]	A hooked black marlin has been recorded stripping line off a fishing reel at 120 feet per second (82 mph; 132 km/h).

Sailfish	109.19 km/h (67.85 mph)[citation needed]	In a series of tests carried out in a fishing cam at Long Key, Florida, United States, sailfish swam and leapt 91 meters (300 feet) in 3 seconds, equivalent to a speed of 109 km/h (68 mph), although this speed includes leaps out of the water, which do not strictly qualify as swimming speed.
Swordfish	97 km/h (60 mph)[citation needed]	The 60 mph (97 km/h) figure listed for the swordfish is based on a corrupted version of calculations made by Sir James Gray to estimate the impact speed necessary for a hypothetical 600-pound (270 kg) swordfish to embed its sword 3 feet in the timbers of ships, as has been known to occur; the figure seems to have entered the literature without question as though someone had actually timed a swordfish at that speed.
Yellowfin tuna	76 km/h (47 mph)[43]	Many tuna species are capable of swimming at fast speeds colloquially cited at around 80 km/h (50 mph). The tails of tuna move fast enough to cause cavitation, which slows them down as vapour accumulates.[44] Tuna have bony fins without nerve endings, which prevents the fish from feeling the pain of cavitation but does not fully protect them from the implosive damage.
Shortfin mako shark	72 km/h (45 mph)[citation needed]	Underwater and unimpeded by a fishing line, the Shortfin Mako has been reliably clocked at 31 miles (50 kilometres) per hour, and there is a claim that one individual of this species achieved a burst speed of 46 miles (74 kilometres) per hour. But it is extremely difficult to get a fish in the wild to swim in a straight line over a measured course. Laboratory measurements of numerous kinds of fishes — representing a wide range of body sizes — swimming against an artificial current have revealed a surprisingly uniform maximum burst speed of about 10 times the body length per second. Thus, for an average-sized, 6.5-foot (2-metre) Shortfin, its theoretical maximum speed might be something on the order of 45 miles (72 kilometres) per hour. Yet some estimates of the top-speed of a Shortfin Mako are considerably higher.

Mammals[edit]

Animal	Maximum speed	Notes
Mexican free-tailed bat (in flight)	160 km/h (99 mph)[12]	
Cheetah	109.4–120.7 km/h (68.0–75.0 mph)[d]	The cheetah can accelerate from 0 to 96.6 km/h (60.0 mph) in under three seconds, though endurance is limited: most cheetahs run for only 60 seconds at a time.[1] When sprinting, cheetahs spend more time in the air than on the ground.[45] See *Sarah*, the fastest cheetah.
Pronghorn	88.5 km/h (55.0 mph)[e]	The pronghorn (American antelope) is the fastest animal over long distances; it can run 56 km/h for 6 km (35 mph for 4 mi), 67 km/h for 1.6 km (42 mph for 1 mi), and 88.5 km/h for 0.8 km (55 mph for 0.5 mi).[1]
Springbok	88 km/h (55 mph)[28][29]	The springbok, an antelope of the gazelle tribe in southern Africa,[29] can make long jumps and sharp turns while running. Unlike pronghorns, springboks are poor long-distance runners.[1]

Wildebeest	80.5 km/h (50.0 mph)[f]	The wildebeest, an antelope, exists as two species: the blue wildebeest and the black wildebeest. Both are extremely fast runners, which allows them to flee from predators.[32]They are better at endurance running than at sprinting.[31]
Lion	80.5 km/h (50.0 mph)[33]	The lion (*Panthera leo*) It is the second fastest wild cat with a top running speed of 80.5 km/h though it lasts only for very short bursts and can be highly exhausting, hence they have to be close to their prey before starting the attack.[33]
Blackbuck	80 km/h (50 mph)[28][34]	The blackbuck antelope can sustain speeds of 80 km/h (50 mph) for over 1.5 km (0.93 mi) at a time.[34] Each of its strides (i.e., the distance between its hoofprints) is 5.8–6.7 m (19–22 ft).[28]
Hare	80 km/h (50 mph)	Hares can reach maximum speeds of 35 mph (56 km/h)[46] in short distances of approximately 90 meters, and a top speed of 50 mph (80 km/h) for about 20 meters.
Greyhound	74 km/h (46 mph)[g]	Greyhounds are the fastest dogs, and have primarily been bred for coursing game and racing.
Jackrabbit	72 km/h (45 mph)[h]	The jackrabbit's strong hind legs allow it to leap 3 m (9.8 ft) in one bound; some can even reach 6 m (20 ft).[57] Jackrabbits use a combination of leaps and zig-zags to outrun predators.[50]
African wild dog	71 km/h (44 mph)[i]	When hunting, African wild dogs can sprint at 66 km/h (41 mph) in bursts, and they can maintain speeds of 56–60 km/h (35–37 mph) for up to 4.8 km (3 mi).[61][62] Their targeted prey rarely escapes.[59]
Kangaroo	71 km/h (44 mph)[j]	The comfortable hopping speed for a kangaroo is about 21–26 km/h (13–16 mph), but speeds of up to 71 km/h (44 mph) can be attained over short distances, while it can sustain a speed of 40 km/h (25 mph) for nearly 2 km (1.2 mi).[64] The faster a kangaroo hops, the less energy it consumes (up to its cruising speed).[63]
Horse	70.76 km/h (43.97 mph)[65]	The fastest horse speed was achieved by a thoroughbred.
Onager	70 km/h (43 mph)[k]	The onager consists of several subspecies, which most likely share the same ability to run at high speeds.[68]
Thomson's gazelle	70 km/h (43 mph)[l]	Thomson's gazelles, being long-distance runners, can escape cheetahs by sheer endurance.[70] Their speed is partially due to their "stotting", or bounding leaps.[69]
Coyote	65 km/h (40 mph)[m]	Coyotes can easily reach 48 km/h (30 mph), and can sprint at 65 km/h (40 mph) when hunting.[72] Even when lacking a front foot, a coyote can still run at around 32 km/h (20 mph).[71]

Common dolphin	65 km/h (40 mph)[n]	Common dolphins are the fastest marine mammal. When reaching their top speed, they take very short breaths. As an example, fin whales, which are much larger, can empty and refill their lungs in 2 seconds
Zebra	64 km/h (40 mph)[o]	Zebras have a home range anywhere between 11 and 232 sq mi (28 and 601 km²) and they can travel 10 mi (16 km) a day while grazing.[77]
Tiger	64 km/h (40 mph)[p]	They live in jungles, and have been recorded going anywhere from 30 mph (48 km/h) to 40 mph (64 km/h), although only in short bursts.
Hyena	60 km/h (37 mph)[q]	The hyena can run up to 60 km/h (37 mph); some attribute this performance specifically to the spotted hyena.[81] They use their speed to chase their prey, sometimes traveling 15 mi (24 km) in a single chase.
Human	Instantaneous max. 47.56 km/h (29.55 mph) Avg max over fastest 10 to 20m was 45 kmh/28 mph[82] Compared to other land animals, humans are exceptionally capable of endurance, but exceptionally incapable of great speed.	*Usain Bolt set the 100 m world record at 9.58 seconds. His absolute fastest recorded speeds (between individual strides) during that sprint were 13.2 meters/second (29.55 mph / 47.52 km/h) between strides during the 50m to 70m intervals. Average overall maximum speeds over this 20m section of the race (where max speed is reached during approx. the middle) to 75m were 44–45 km/h (28 mph) before tapering from 75m onwards.[83] • Hicham El Guerrouj set the current men's mile run (5,280 feet/1,609.344 metres) world record of 3:43.13. • Svetlana Masterkova set the current women's mile run (5,280 feet/1,609.344 metres) world record of 4:12.56.[84] In the absence of significant external factors, non-athletic humans tend to walk at about 1.4 m/s (5.0 km/h; 3.1 mph) and run at about 5.1 m/s (18 km/h; 11 mph).[85][86][87] Although humans are capable of walking at speeds from nearly 0 m/s to upwards of 2.5 m/s (9.0 km/h; 5.6 mph) and running 1 mile (1.6 kilometers) in 6.5 minutes, humans typically choose to use only a small range within these speeds.[88]
African elephant	24.9 km/h (15.5 mph)[89]	

Invertebrates[edit]

Animal	Maximum recorded speed	Notes
Horsefly	145 km/h (90 mph)[90][*unreliable source?*]	The pursuit maneuver used by male *Hybomitra hinei wrighti*, measured by interpolation of slow-motion cinematography.
Members of Loliginidae and Ommastrephidae	36 km/h (22 mph)	Many of these species "fly" out of the water to escape danger. The Japanese flying squid can glide for 3 seconds over 30 metres.

Paratarsotomus macropalpis	~22 cm/s or 800 m/h (8.7 in/s or 0.51 mph)	0.7 mm long mite endemic to Southern California, tracked running up to 322 body lengths per second, equivalent to a human running at around 2,092 km/h (1,300 mph). It can withstand temperatures of 60 °C (140 °F), which are lethal to many animals.[5][91]
Tiger beetle	6.8 km/h (4.2 mph)[6]	The Australian tiger beetle *Cicindela eburneola*, is one of the fastest running insects in the world relative to body size, which has been recorded at 6.8 km/h (4.2 mph) or 171 body lengths per second. It can fly at a speed of 27 mph

See also[edit]

- Speed records
- Slowest animals

Notes[edit]

1. ^ Different sources cite different speeds; estimates include 96–120 km/h (60–75 mph),[1] 98 km/h (61 mph),[18] 100 km/h (62 mph),[19] 104 km/h (65 mph),[20] and 104.4 km/h (64.9 mph).[21][22] There is a tendency to overestimate the speed of fast animals, and claims of the cheetah running 114 km/h (71 mph) or faster have been discredited.[1][22]
2. ^ Estimates include "over 53 miles (86 kilometers) per hour",[24]88.5 km/h (55.0 mph),[1][20] an "*alleged* top speed of 60 miles an hour [96.6 km/h]" (emphasis added),[25] 98 km/h (61 mph),[26] and "a top speed of *about* 100 km/hr [62 mph]" (emphasis added).[27]
3. ^ Estimates include 70 km/h (43 mph) (specifically the black wildebeest),[30] "approximately 80 km/h or 50 mph",[31] and "over 50 miles per hour [80.5 km/h]" (specifically the blue wildebeest).[32]
4. ^ Different sources cite different speeds; estimates include 96–120 km/h (60–75 mph),[1] 98 km/h (61 mph),[18] 100 km/h (62 mph),[19] 104 km/h (65 mph),[20] and 104.4 km/h (64.9 mph).[21][22] There is a tendency to overestimate the speed of fast animals, and claims of the cheetah running 114 km/h (71 mph) or faster have been discredited.[1][22]
5. ^ Estimates include "over 53 miles (86 kilometers) per hour",[24]88.5 km/h (55.0 mph),[1][20] an "*alleged* top speed of 60 miles an hour [96.6 km/h]" (emphasis added),[25] 98 km/h (61 mph),[26] and "a top speed of *about* 100 km/hr [62 mph]" (emphasis added).[27]
6. ^ Estimates include 70 km/h (43 mph) (specifically the black wildebeest),[30] "approximately 80 km/h or 50 mph",[31] and "over 50 miles per hour [80.5 km/h]" (specifically the blue wildebeest).[32]
7. ^ Estimates include 67 km/h (42 mph),[47] 68.4 km/h (42.5 mph),[48] and 69 km/h (43 mph).[20]
8. ^ Estimates include 64 km/h (40 mph),[49][50] 70 km/h (43 mph),[51]:237[52] and 72 km/h (45 mph) (some attribute this to the antelope jackrabbit,[53] others to the white-tailed jackrabbit,[54][55] and still others to jackrabbits in general.[56])
9. ^ Estimates include 66 km/h (41 mph)[58] and 71 km/h (44 mph)[59][60]
10. ^ Estimates include "more than 30 miles per hour (48 kilometers per hour)"[63] and 71 km/h (44 mph).[64]
11. ^ Estimates include 64 km/h (40 mph),[66]:169 69 km/h (43 mph) (specifically for the kulan subspecies),[67] and 70 km/h (43 mph) (specifically for the Persian subspecies).[68]
12. ^ Estimates include 64 km/h (40 mph)[69] and 70 km/h (43 mph).[70]
13. ^ Estimates include 64 km/h (39.8 mph),[71] 64.4 km/h (40 mph),[72] and 65 km/h (40 mph)[73]:55
14. ^ Estimates include 64 km/h (39.8 mph),[74]
15. ^ Estimates include 35 mph (56 km/h)[75] and 40 mph (64 km/h) for both the Grévy's zebra and Burchell's zebra.[76][77]
16. ^ Estimates include 40 mph (64 km/h)[78]
17. ^ Estimates include 30 mph (48 km/h),[79] 25–31 mph (40–50 km/h) (specifically for the brown hyena)[80] and 37 mph (60 km/h)[66]:160[81]

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