



Box tree moth

Cydalima perspectalis (Walker, 1859)



I II III IV V VI VII VIII IX X XI XII



Caterpillar



Damage on box tree

TAXONOMY:

Lepidoptera, Pyralidae

NATIVE RANGE:

East Asia

PATHWAYS:

transport of nursery stock, spontaneous spread



DESCRIPTION: A moth with a wingspan of 3–4 cm. The wings are off-white and slightly iridescent with a dark brown outer edge. On the front wings, there is a white spot. Females lay their eggs on the underside of the leaves of box trees (*Buxus spp.*). Young caterpillars are green, becoming browner later. Along their body, they have black and white stripes, and warty excrescences. They are hairy and measure up to 4 cm, feeding on box tree leaves. Often present in large numbers, they produce white spiderweb-like silk threads and box trees may die because of the damage. The moths overwinter as early instar larvae among the leaves.

HABITAT: Box tree moths occur on various box tree species (*Buxus spp.*) and can be found in natural habitats as well as urban settings and plant nurseries.

STATUS: Spreading rapidly throughout whole of Europe. Common.

SIMILAR SPECIES: In Europe, there are no similar moth species. The drying of box tree foliage may also be caused by the fungi *Cylindrocladium buxicola* and *Volutella buxi*, but in case of a fungal disease there are no spiderweb-like silk threads.



Birds and mammals

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Red-billed leiothrix

Leiothrix lutea (Scopoli, 1786)



I II III IV V VI VII VIII IX X XI XII

DESCRIPTION: A colourful member of the laughingthrush family, greyish-brown with an olive-green crown, a large pale eye-patch, a bright orange breast and red bill with a black base. The upperparts are plain olive-grey. The grey wing coverts contrast with orange-yellow fringes of the primaries and orange fringes on the secondaries. The tail is forked and blackish-brown. The sexes are similar but separable when seen side-by-side with females less brightly coloured overall, having a less deeply-forked tail and a more extensive black base of the bill.

HABITAT: Natural woodlands with dense undergrowth, bamboo forests and cultivated areas including olive groves.

STATUS: Established populations in Portugal, France, Italy and Spain. Breeding has been confirmed in the United Kingdom.

SIMILAR SPECIES: Silver-eared mesia (*Leiothrix argentauris*) is bred in captivity and may occasionally escape. It has a black-capped head, combined with whitish ear-patches. The European robin (*Erythacus rubecula*) has a more extensive orange breast patch which surrounds its eyes, uniform olive-coloured wings and a dark brown bill.

TAXONOMY:

Passeriformes,
Leiothrichidae

NATIVE RANGE:

East Asia (China,
Himalayas)

PATHWAYS:

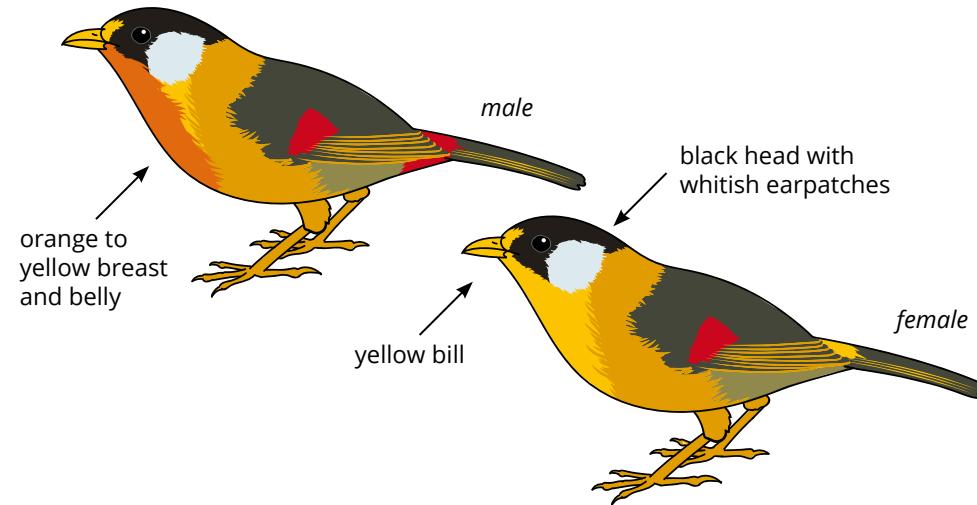
escape from captivity



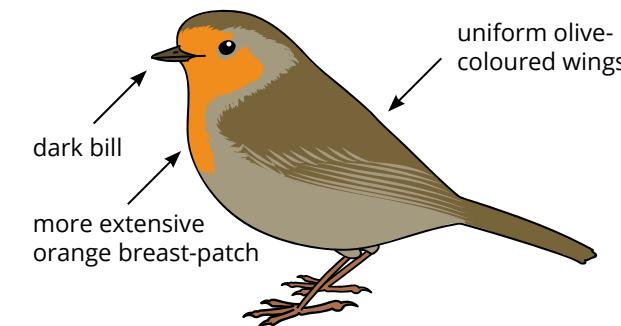
Red-billed leiothrix (*Leiothrix lutea*) AS



Silver-eared mesia (*Leiothrix argentauris*) AS



European robin (*Erythacus rubecula*) ES





Vinous-throated parrotbill

Sinosuthora webbiana (Gould, 1852), syn. *Paradoxornis webbianus*



I II III IV V VI VII VIII IX X XI XII

DESCRIPTION: A small (12 cm) passerine with a long tail. The short, parrot-like bill is brown with a pale tip. The head and wings are rufous-brown while the back and tail are greyish. The throat is pale with fine rufous streaks. The iris is dark brown and legs are pinkish-grey. Sexes are similar. In Italy, it co-occurs and hybridises with the ashy-throated parrotbill subspecies (*P. w. alphonsiana*), which can be recognised by a more extensive pale bill, pale iris and grey cheeks.

HABITAT: Forest edges, thickets, hedgerows and reedbeds.

STATUS: Populations are established in Northern Italy and the Netherlands. Sensitive to cold winters.

SIMILAR SPECIES: European native bearded reedling (*Panurus biarmicus*) has black-streaked wings. The head of females and juveniles is pale brown while males have a grey head with characteristic black "moustaches".

TAXONOMY:

Passeriformes, Sylviidae

NATIVE RANGE:

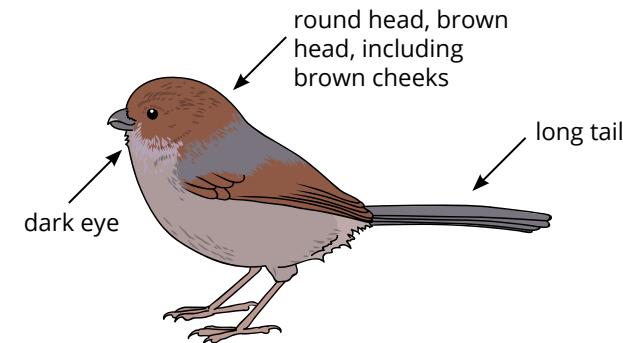
East Asia
(China, Korea, Taiwan)

PATHWAYS:

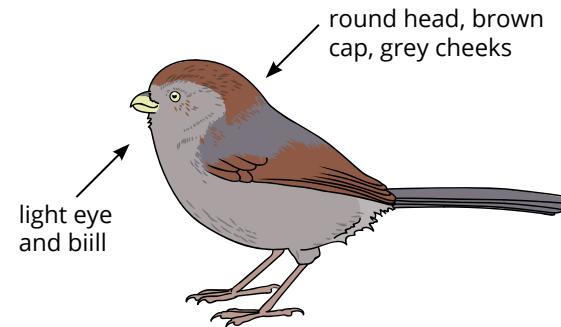
releases from captivity



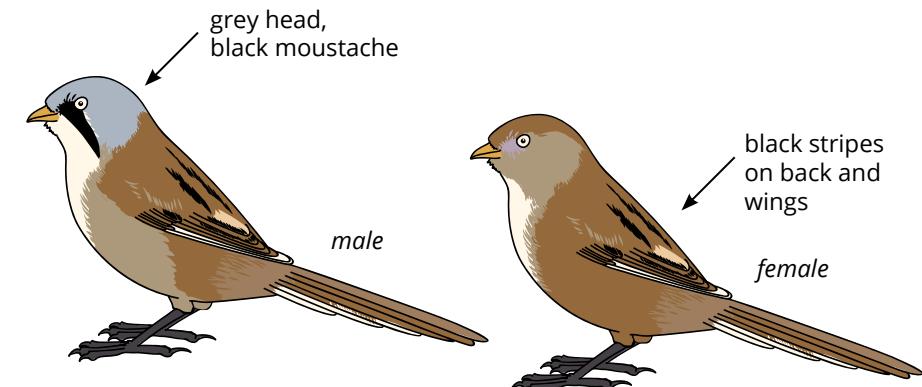
Vinous-throated parrotbill (*Sinosuthora webbiana webbiana*) AS



Ashy-throated parrotbill (*Sinosuthora webbiana alphonsiana*) AS



Bearded reedling (*Panurus biarmicus*) ES





Siberian chipmunk

Eutamias sibiricus (Laxmann, 1769) syn. *Tamias sibiricus*



I II III IV V VI VII VIII IX X XI XII

DESCRIPTION: A small ground squirrel (head-body length 12–17 cm, with a tail of 8–11 cm) with five dark, equally broad longitudinal stripes on its back and two dark stripes on each side of the head. The throat and belly are white but ear tufts are absent. When alarmed, it emits "chirping" sounds.

HABITAT: Coniferous and deciduous forests with a rich undergrowth as well as parks and gardens.

STATUS: Populations are locally established in at least seven countries. Native in parts of Russia (not shown on the map).

SIMILAR SPECIES: The eastern chipmunk (*Tamias striatus*) is larger (22–27 cm), has a grey rather than brown back and a narrower mid-dorsal stripe. The Himalayan striped squirrel (*Tamiops mcclellandii*) and Swinhoe's striped squirrel (*Tamiops swinhoei*) are smaller (max. 11 cm) and have distinct white ear tufts.

TAXONOMY:

Rodentia, Sciuridae

NATIVE RANGE:

northern and eastern Asia

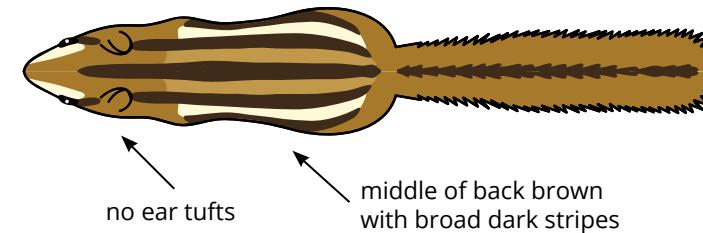
PATHWAYS:

escape or release from captivity

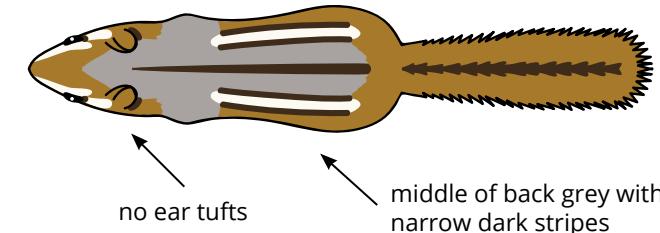


BIO

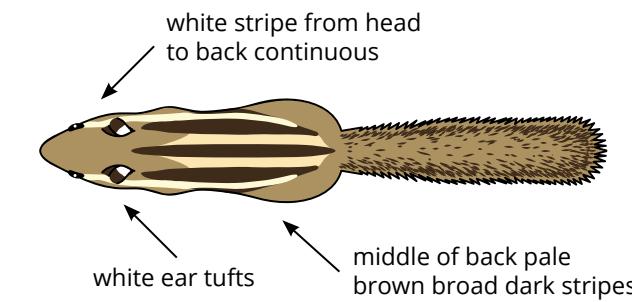
Siberian chipmunk (*Eutamias sibiricus*) AS



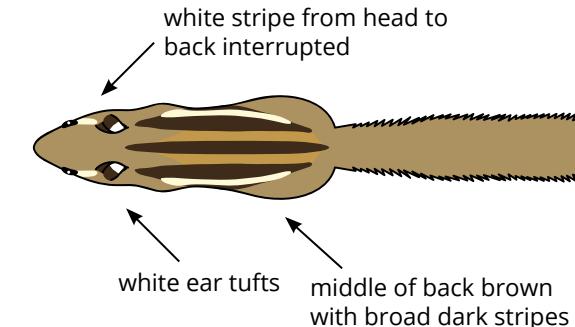
Eastern chipmunk (*Tamias striatus*) AS



Himalayan striped squirrel (*Tamiops mcclellandii*) AS



Swinhoe's striped squirrel (*Tamiops swinhoei*) AS





Grey squirrel

Sciurus carolinensis Gmelin 1788



I II III IV V VI VII VIII IX X XI XII

DESCRIPTION: A large tree squirrel (head-body length 23–28 cm, with a tail of 20–24 cm), with a greyish colour combined with white underparts. The flanks, legs and head may be orangey-red. The tail is bicoloured: with the tail fur having a reddish base and whitish-grey tips. Ear tufts are not present in any season.

HABITAT: Mature deciduous and mixed forests with a high percentage of seed-producing trees. Often also in urban areas, especially city parks.

STATUS: Widespread in the UK and Ireland, established in Italy. Incidental escapes have been recorded in Belgium, the Netherlands, Germany and France.

SIMILAR SPECIES: The native Eurasian red squirrel (*Sciurus vulgaris*) is smaller (head-body length 21–25 cm with a tail of 15–20 cm) and has pronounced ear tufts which may be absent in summer. It is highly variable in colouration, but all morphs have a uniform coloured tail. The fox squirrel (*Sciurus niger*), rarely kept in captivity in Europe, is larger (head-body length 25–37 cm with a tail of 20–33 cm) and usually has yellow to orange underparts and lacks the whitish-grey tips on the tail fur.

TAXONOMY:

Rodentia, Sciuridae

NATIVE RANGE:

North America

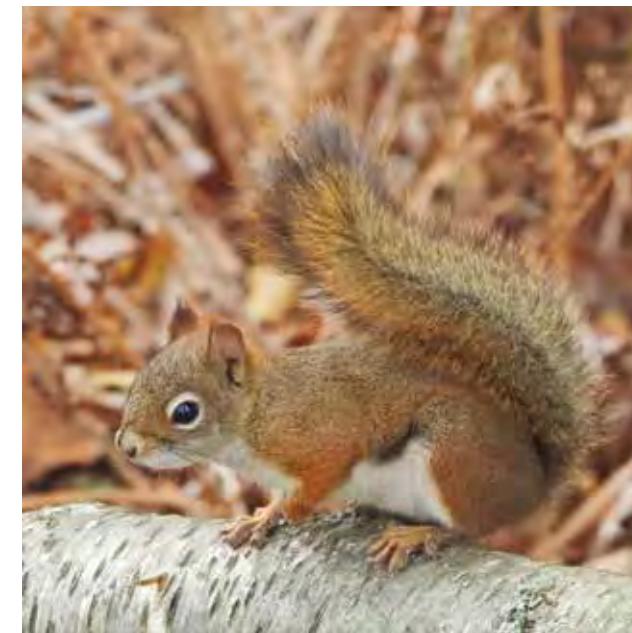
PATHWAYS:

escape or release from captivity



American red squirrel

Tamiasciurus hudsonicus (Erxleben, 1777)



I II III IV V VI VII VIII IX X XI XII

DESCRIPTION: A small tree squirrel (head-body length 18–23 cm, with a tail of 9–16 cm) with deep red coloured fur. It has pronounced white eye-rings, and a black lateral line which separates the red colour on the flanks from the white colouration of the underparts. This lateral line is especially visible in summer. In winter, it has small ear tufts.

HABITAT: Coniferous, mixed and deciduous forests, as well as parks and gardens.

STATUS: No established populations in Europe known, but occasional escapes have been recorded in the Netherlands and Belgium.

SIMILAR SPECIES: The native Eurasian red squirrel (*Sciurus vulgaris*) is slightly larger (21–25 cm long with a tail of 15–20 cm) and has long ear tufts which may be absent in summer. Its colour is highly variable, but it lacks a black lateral line in any of its colour morphs. The Calabrian squirrel (*S. meridionalis*) is nearly black with white underparts.

TAXONOMY:

Rodentia, Sciuridae

NATIVE RANGE:

North America

PATHWAYS:

escape or release from captivity





Pallas's squirrel

Callosciurus erythraeus (Pallas, 1779)



I II III IV V VI VII VIII IX X XI XII

DESCRIPTION: A medium-sized tree squirrel (head-body length 20–26 cm, with a tail of 17–20 cm) with an olive-brown coloured back and flanks and brown to chestnut or yellowish coloured underparts. The tips of the tail fur are white. No ear tufts are present in any season.

HABITAT: Forests, parks and gardens.

STATUS: Populations are eradicated in Belgium and the Netherlands. Populations present and undergoing eradication in France and Italy.

SIMILAR SPECIES: The native Eurasian red squirrel (*Sciurus vulgaris*) has white underparts and pronounced ear tufts, which may be absent in summer. Variable squirrel (*C. finlaysonii*), which is occasionally kept in captivity in Europe, has a highly variable colouration but has, in most colour morphs, has extensive white underparts.

TAXONOMY:

Rodentia, Sciuridae

NATIVE RANGE:

East and Southeast Asia

PATHWAYS:

escape or release from captivity



Ring-tailed coati

Nasua nasua (Linnaeus, 1766)



I II III IV V VI VII VIII IX X XI XII

DESCRIPTION: A cat-sized mammal (head-body length 40–65 cm, with a tail of 30-70 cm). The tail is slender with approximately 10 dark rings along its entire length. The front limbs are short, the hind limbs longer. Snout conical and black, grading to brown with white spots close to the eyes. The fur is usually light to dark brown.

HABITAT: Wooded areas, especially deciduous forests, evergreen forests and riparian forests.

STATUS: Established on Mallorca until at least 2015, but undergoing eradication. Single escaped individuals have been recorded in other European countries. Unlikely to survive in areas with severe winters.

SIMILAR SPECIES: Confusion is possible with raccoon (*Procyon lotor*) due to its ringed tail. The raccoon has a longer-furred tail, a less elongated snout and a black facial mask around its eyes. The white-nosed coati (*Nasua narica*) which is occasionally kept in captivity, is more similar but has a pronounced white facial pattern with a broad white band around its snout.

TAXONOMY:

Carnivora, Procyonidae

NATIVE RANGE:

South America

PATHWAYS:

escape or release from captivity





Raccoon

Procyon lotor Linnaeus, 1758



I II III IV V VI VII VIII IX X XI XII

DESCRIPTION: A cat-sized mammal (head-body length 60–90 cm, with a tail of 20–40 cm) with a hunched body posture. The fur is usually grey, but reddish, beige and melanistic (black) forms are selectively bred. It is recognisable by its black facial mask combined with a thick tail with 4-10 black rings.

HABITAT: Highly adaptable to a range of habitats, but most often near water.

STATUS: Common and widespread in Germany, where has been established since the 1920's, but also established in neighbouring countries. Observations elsewhere in Europe are mainly sporadic.

SIMILAR SPECIES: The alien raccoon dog (*Nyctereutes procyonoides*) has a similar overall size and a black facial mask, but possesses a shorter tail without black rings. The Eurasian badger (*Meles meles*) has a more elongated, white head with black stripes running longitudinally instead of a transverse mask.

TAXONOMY:
Carnivora, Procyonidae

NATIVE RANGE:
North America

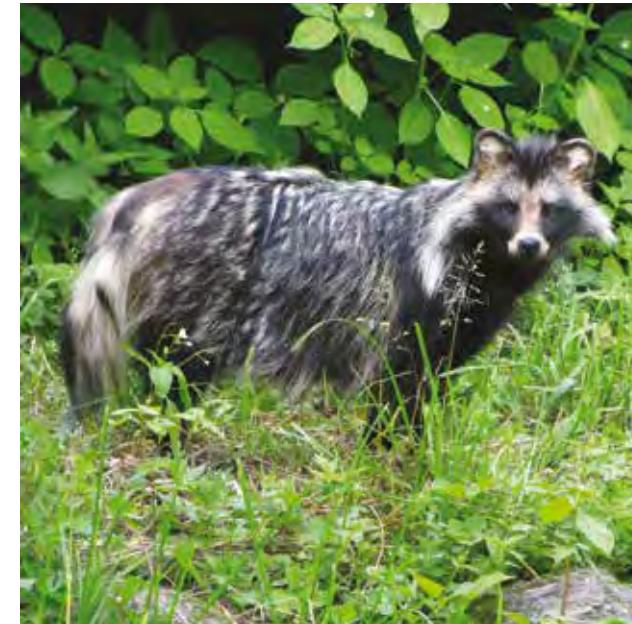
PATHWAYS:
escape or release from captivity



BIO

Raccoon dog

Nyctereutes procyonoides Gray, 1834



I II III IV V VI VII VIII IX X XI XII

DESCRIPTION: A small wild dog species (head-body length 50-70 cm, with a tail of 13-25 cm), which in overall appearance and size is similar to raccoon. Its fur is yellowish or reddish grey with darker black hairs from its back and shoulders along towards its tail, while the chest, neck, legs and feet are blackish. It has a facial mask similar to a raccoon, but its tail is uniformly coloured like the body.

HABITAT: It especially inhabits areas with a combination of meadows and deciduous or mixed forests with a well developed shrub layer, preferably close to water.

STATUS: A widespread and abundant species in Finland, Poland, Belarus, Latvia, Lithuania, Estonia, the Ukraine, Germany and Western Russia. Occasional individuals are recorded in other parts of Europe.

SIMILAR SPECIES: Raccoon (*Procyon lotor*) has a similar black facial mask and overall size, but possesses a black-ringed tail. It is somewhat similar to the Eurasian badger (*Meles meles*), which has a more elongated white head with black stripes running longitudinally instead of a transverse mask, and a light grey body.

TAXONOMY:
Carnivora, Canidae

NATIVE RANGE:
East Asia

PATHWAYS:
escaped or released from captivity



BIO



Reeves's muntjac

Muntiacus reevesi (Ogilby, 1839)



I II III IV V VI VII VIII IX X XI XII

DESCRIPTION: A small deer (50 cm at the shoulder) with a hunched posture (head carried low, bottom high, back arched). In summer it is reddish brown, in winter brownish-grey, with darker forelimbs and dark fascial markings. Males have small, backward-pointing antlers with 1 to 2 tines and enlarged canine tusks in the upper jaw. When alarmed, they lift their tail and show the white underside. The juveniles are white-spotted.

HABITAT: Deciduous, mixed and coniferous forest with dense undergrowth. It also occurs in orchards, parks, gardens, grassland and along road verges.

STATUS: Widespread in the UK, especially in England, less so in Wales. Small populations exist in Ireland, Belgium and the Netherlands. Also reported from France.

SIMILAR SPECIES: Roe deer (*Capreolus capreolus*) is larger (70 cm at the shoulder), lacks an obvious tail and has a white rump patch in winter. Males have upright antlers with 1 to 3 tines, but lack tusks. The Chinese water deer (*Hydropotus inermis*) is only slightly larger (55 cm at the shoulder) and has a short, stumpy tail and only an indistinct rump patch. It lacks dark facial markings. The males lack antlers but have prominent canine tusks.

TAXONOMY:

Artiodactyla, Cervidae

NATIVE RANGE:

East Asia (China, Taiwan)

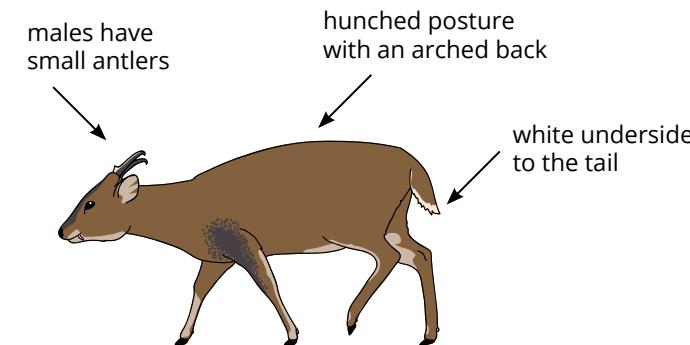
PATHWAYS:

escape from captivity, released for hunting



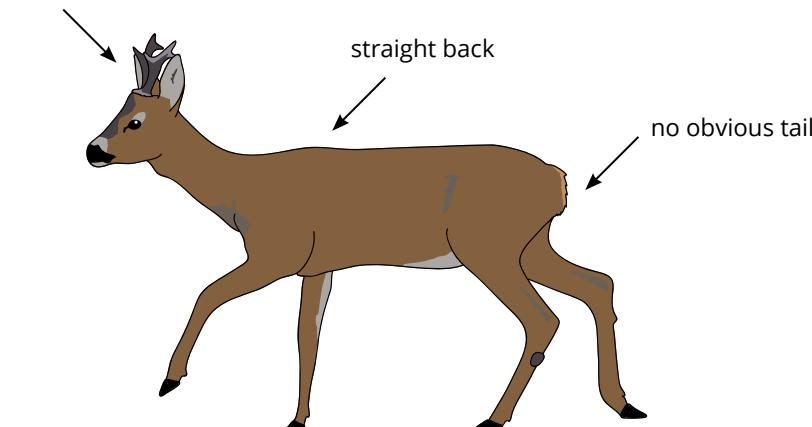
BIO

Reeves's muntjac (*Muntiacus reevesi*) AS



Roe deer (*Capreolus capreolus*) ES

antlers of males with up to three tines



Chinese water deer (*Hydropotus inermis*) AS

