For centuries, travellers to China have told tales of magical landscapes and surprising creatures. Chinese civilisation is the world's oldest and today, its largest, with well over a billion people. It's home to more than and a wide range of traditional lifestyles, often in close partnership with nature. We know that China faces immense social and environmental problems. But there is great beauty here, too. China is home to the world's highest mountains, vast deserts ranging from searing hot to mind-numbing cold. Steaming forests harbouring rare creatures. Grassy plains beneath vast horizons. And rich tropical seas. Now for the first time ever, we can explore the whole of this great country, meet some of the surprising and exotic creatures that live here and consider the relationship of the people and wildlife of China to the remarkable landscape in which they live. This is Wild China. Our exploration of China begins in the warm, subtropical south. On the Li River, fishermen and birds perch on bamboo rafts, a partnership that goes back more than a thousand years. This scenery is known throughout the world,
a recurring motif in Chinese paintings.
And a major tourist attraction.
The south of China is a vast area,
eight times larger than the UK.
It's a landscape of hills
but also of water.

(THUNDER RUMBLING)
It rains here for up to 250 days a year,
and standing water is everywhere.

(THUNDER RUMBLING)
In the floodplain of the Yangtze River,
black-tailed godwits probe
the mud in search of worms.
But isn't just wildlife
that thrives in this environment.
The swampy ground
provides ideal conditions
for a remarkable member
of the grass family.
Rice.
The Chinese have been cultivating rice
for at least 8,000 years.
It has transformed the landscape.
Late winter in southern Yunnan
is a busy time for local farmers
as they prepare the age-old paddy fields
ready for the coming spring.
These hill slopes of the Yuanyang County
plunge nearly 2,000 metres
to the floor of the Red River valley.
Each contains literally
thousands of stacked terraces
carved out by hand
using basic digging tools.
Yunnan's rice terraces are among
the oldest human structures in China.
Still ploughed,
as they always have been,
by domesticated water buffaloes,
whose ancestors originated
in these very valleys.
This man-made landscape
is one of the most
amazing engineering feats
of pre-industrial China.
It seems as if every square inch of land
has been pressed into cultivation.
As evening approaches,
an age-old ritual unfolds.
It's the mating season
and male paddy frogs are competing for
the attention of the females.
But it doesn't always pay to draw
too much attention to yourself.
The Chinese pond heron
is a pitiless predator.
(SQUAWKS)
Even in the middle
of a ploughed paddy field,
nature is red in beak and claw.
This may look like a slaughter
but as each heron can swallow
only one frog at a time,
the vast majority will escape
to croak another day.
Terraced paddies like those
of the Yuanyang County
are found across much of southern China.
This whole vast landscape is
dominated by rice cultivation.
In hilly Guizhou Province,
the Miao minority have developed
a remarkable rice culture.
With every inch of fertile land
given over to rice cultivation,
the Miao build their wooden houses
on the steepest
and least productive hillsides.
In Chinese rural life,
everything has a use.
Dried in the sun,
manure from the cow sheds
will be used as cooking fuel.
(WOMEN CHATTERING IN CHINESE)
It's midday, and the Song family
are tucking into a lunch
of rice and vegetables.
(SPEAKING IN CHINESE)
Oblivious to the domestic chit-chat, Granddad Gu Yong Xiu has serious matters on his mind. Spring is the start of the rice growing season. The success of the crop will determine how well the family will eat next year, so planting at the right time is critical. The ideal date depends on what the weather will do this year, never easy to predict. But there is some surprising help at hand.

On the ceiling of the Songs' living room, a pair of red-rumped swallows, newly arrived from their winter migration, is busy fixing up last year's nest. In China, animals are valued as much for their symbolic meaning as for any good they may do. Miao people believe that swallow pairs remain faithful for life, so their presence is a favour and a blessing, bringing happiness to a marriage and good luck to a home. Like most Miao dwellings, the Songs' living room windows look out over the paddy fields. From early spring, one of these windows is always left open to let the swallows come and go freely. Each year, granddad Gu notes the exact day the swallows return. Miao people believe the birds' arrival predicts the timing of the season ahead. This year, they were late. So Gu and the other community elders have agreed that rice planting should be delayed accordingly. As the Miao prepare
their fields for planting,
the swallows collect mud
to repair their nests
and chase after insects
across the newly ploughed paddies.
Finally, after weeks of preparation,
the ordained time for planting
has arrived.
But first the seedlings must be
uprooted from the nursery beds
and bundled up ready
to be transported to their new paddy
higher up the hillside.
All the Songs' neighbours have turned
out to help with the transplanting.
It's how the community
has always worked.
When the time comes,
the Songs will return the favour.
While the farmers
are busy in the fields,
the swallows fly back and forth
with material for their nest.
Many hands make light work.
Planting the new paddy
takes little more than an hour.
Job done, the villagers can relax,
at least until tomorrow.
But for the nesting swallows,
the work of raising a family
has only just begun.
In the newly planted fields,
little egrets hunt for food.
The rice paddies harbour tadpoles,
fish and insects
and the egrets have chicks to feed.
This colony in Chongqing Province
was established in 1996,
when a few dozen birds built nests
in the bamboo grove
behind Yang Guang village.
Believing they were a sign of luck,
local people initially protected
the egrets and the colony grew.
But their attitude changed
when the head of the village fell ill.
They blamed the birds
and were all set to destroy their nests,
when the local government
stepped in to protect them.
Bendy bamboo may not be
the safest nesting place,
but at least this youngster
won't end up as someone's dinner.
These chicks have just had an eel
delivered by their mum,
quite a challenge for little beaks.
(CHIRPING)
Providing their colonies are protected,
wading birds like egrets
are among the few wild creatures
which benefit directly from
intensive rice cultivation.
Growing rice needs lots of water.
But even in the rainy south,
there are landscapes where water
is surprisingly scarce.
This vast area of southwest China,
the size of France and Spain combined,
is famous for its clusters
of conical hills,
like giant upturned egg cartons,
separated by dry empty valleys.
This is the karst, a limestone terrain
which has become the defining image
of southern China.
Karst landscapes are often
studded with rocky outcrops,
forcing local farmers
to cultivate tiny fields.
The people who live here
are among the poorest in China.
In neighbouring Yunnan Province,
limestone rocks
have taken over entirely.
This is the famous Stone Forest,
the product of
countless years of erosion,
producing a maze of deep gullies
and sharp-edged pinnacles.
Limestone has the strange property
that it dissolves in rainwater.
Over many thousands of years
water has corroded its way
deep into the heart
of the bedrock itself.
This natural wonder is
a famous tourist spot,
receiving close to
two million visitors each year.
The Chinese are fond of
curiously-shaped rocks
and many have been given fanciful names.
No prizes for guessing
what this one is called!
But there's more to this landscape
than meets the eye.
China has literally thousands
of mysterious caverns
concealed beneath
the visible landscape of the karst.
Much of this hidden world
has never been seen by human eyes
and is only just now being explored.
(MAN SPEAKING CHINESE)
For a growing band of intrepid
young Chinese explorers,
caves represent the ultimate adventure.
Exploring a cave is like
taking a journey through time.
A journey which endless raindrops will
have followed over countless centuries.
Fed by countless drips and trickles,
the subterranean river carves
ever deeper into the rock.
The cave river's course is channelled
by the beds of limestone.
A weakness in the rock
can allow the river
to increase its gradient and flow-rate,
providing a real challenge for
the cave explorers.
The downward rush is halted when the water table is reached. Here the slow-flowing river carves tunnels with a more rounded profile. (MEN CHATTERING)

This tranquil world is home to specialised cave fishes, like the eyeless golden barb. China may have more unique kinds of cave-evolved fishes than anywhere else on earth. Above the water table, ancient caverns abandoned by the river slowly fill up with stalactites and stalagmites. Stalactites form as trickling water deposits tiny quantities of rock over hundreds or thousands of years. Stalagmites grow up where lime-laden drips hit the cave floor.

Oi! Whoo-hoo!

So far, only a fraction of China's caves have been thoroughly prospected and cavers are constantly discovering new subterranean marvels, many of which are subsequently developed into commercial show caves. Finally escaping the darkness, the cave river and its human explorers emerge in a valley far from where their journey began. For now, the adventure is over. Rivers which issue from caves are the key to survival in the karst country. This vertical gorge in Guizhou Province is a focal point for the region's wildlife. This is one of the world's rarest primates, Francois' langur. In China they survive in just two southern provinces,
Guizhou and Guangxi, always in rugged limestone terrains. Like most monkeys, they are social creatures and spend a great deal of time grooming each other. Langurs are essentially vegetarian with a diet of buds, fruits and tender young leaves. Babies are born with ginger fur, which gradually turns black from the tail end. Young infants have a vice-like grip, used to cling on to mum for dear life. As they get older, they get bolder and take more risks. Those that survive spend a lot of time travelling. The experienced adults know exactly where to find seasonal foods in different parts of their range. In such steep terrain, travel involves a high level of climbing skill. These monkeys are spectacularly good rock climbers from the time they learn to walk. In langur society, females rule the roost and take the lead when the family is on the move. One section of cliff oozes a trickle of mineral-rich water which the monkeys seem to find irresistible. These days there are few predators in the Mayanghe Reserve which might pose a risk to a baby monkey. But in past centuries, this area of south China was home to leopards, pythons and even tigers. To survive dangerous night prowlers, the langurs went underground,
using their rock-climbing skills
to seek shelter in inaccessible caverns.
Filmed in near darkness
using a night vision camera,
the troop clambers along familiar ledges
worn smooth by generations before them.
During cold winter weather,
the monkeys venture deeper underground
where the air stays comparatively warm.
At last, journey's end.
A cosy niche beyond the reach
of even the most enterprising predator.
But it's not just monkeys
that find shelter in caves.
These children are off to school.
In rural China that may mean
a long trek each morning,
passing through
a cave or two on the way.
But not all pupils
have to walk to school.
These children are boarders.
(LAUGHING)
As the day pupils near journey's end,
the boarders are still making breakfast.
In the schoolyard, someone seems
to have switched the lights off.
But this is no ordinary playground,
and no ordinary school.
It's housed inside a cave!
A natural vault of rock
keeps out the rain
so there's no need for a roof
on the classroom.
Zhongdong cave school
is made up of six classes,
with a total of 200 children.
As well as the school,
the cave houses 18 families,
together with their livestock.
(COW MOOING)
These could be
the only cave-dwelling cows on earth.
(PIG SQUEALS)
With schoolwork over, it's playtime at last. In southern China, caves aren't just used for shelter, they can be a source of revenue for the community. People have been visiting this cave for generations. The cave floor is covered in guano, so plentiful that 10 minutes' work can fill these farmer's baskets. It's used as a valuable source of fertilizer.

A clue to the source of the guano can be heard above the noise of the river. The sound originates high up in the roof of the cave. The entrance is full of swifts. They're very sociable birds. More than 200,000 of them share this cave in southern Guizhou Province, the biggest swift colony in China. These days, Chinese house swifts mostly nest in the roofs of buildings, but rock crevices like these were their original home, long before houses were invented. Though the swifts depend on the cave for shelter, they never stray further than the limits of daylight, as their eyes can't see in the dark. However, deep inside the cavern, other creatures are better equipped for subterranean life. A colony of bats is just waking up, using ultrasonic squeaks to orientate themselves in the darkness. Night is the time to go hunting. Rickett's mouse-eared bat is the only bat in Asia which specialises in catching fishes, tracking them down from
the sound reflection of ripples
on the water surface.
This extraordinary behaviour
was only discovered
in the last couple of years,
and has never been filmed before.
If catching fish in the dark
is impressive,
imagine eating a slippery minnow with
no hands while hanging upside down.
Dawn over the karst hills of Guilin.
These remarkable hills
owe their peculiar shapes
to the mildly acid waters
of the Li River,
whose meandering course
over eons of time
has corroded away their bases
until only the rocky cores remain.
The Li is one of
the cleanest rivers in China,
a favourite spot for fishermen
with their trained cormorants.
(SPEAKING IN CHINESE)
The men, all called Huang,
come from the same village.
Now in their 70s and 80s,
they've been fishermen all their lives.
Before they release the birds,
they tie a noose loosely around the neck
to stop them swallowing
any fish they may catch.
(SPLASHING)
Chanting and dancing,
the Huangs encourage their birds
to take the plunge.
Underwater, the cormorant's
hunting instinct kicks in,
turning them into fish-seeking missiles.
(CHANTING)
Working together, a good cormorant team
can catch a couple of dozen
decent-sized fish in a morning.
(FISHERMEN EXCLAIMING)
The birds return to the raft with their fish because they've been trained to do so. From the time it first hatched, each of these cormorants has been reared to a life of obedience to its master. The birds are, in effect, slaves. But they're not stupid. It's said that cormorants can keep a tally of the fish they catch, at least up to seven. So unless they get a reward now and then they simply withdraw their labour. The fishermen, of course, keep the best fish for themselves. The cormorants get the leftover tiddlers. With its collar removed, the bird at last can swallow its prize. Best of all, one it isn't meant to have!

(FISHERMAN SHOUTING) These days, competition from modern fishing techniques means the Huangs can't make a living from traditional cormorant fishing alone. And this 1,300-year-old tradition is now practised mostly to entertain tourists. But on Caohai Lake in nearby Guizhou Province, an even more unusual fishing industry is alive and well. Geng Zhong Sheng is on his way to set out his nets for the night. Geng's net is a strange tubular contraption with a closed-off end. More than a hundred fishermen make their living from the lake. Its mineral-rich waters are highly productive, and there are nets everywhere. The next morning, Geng returns with his son to collect his catch.
At first sight, it looks disappointing. Tiny fishes, lots of shrimps, and some wriggling bugs. Geng doesn't seem too downhearted. The larger fish are kept alive, the only way they'll stay fresh in the heat. Surprisingly, some of the bugs are also singled out for special treatment. They're the young stage of dragonflies, predators that feed on worms and tadpoles. Nowhere else in the world are dragonfly nymphs harvested like this. Back home, Geng spreads his catch on the roof to dry. This being China, nothing edible will be wasted. There's a saying in the far south, "We will eat anything with legs except a table, "and anything with wings except a plane." Within a few hours, the dried insects are ready to be bagged up and taken to market. It's the dragonfly nymphs that fetch the best price. Fortunately, Caohai's dragonflies are abundant and fast-breeding. So Geng and his fellow fishermen have so far had little impact on their numbers. But not all wildlife is so resilient. This Buddhist temple near Shanghai has an extraordinary story attached to it. In May 2007, a Wild China camera team filmed this peculiar Swinhoe's turtle in the temple's fish pond. According to the monks, the turtle had been given to the temple during the Ming dynasty,
over 400 years ago.
It was thought to be
the oldest animal on earth.
Soft-shelled turtles are considered
a gourmet delicacy by many Chinese,
and when it was filmed,
this was one of just three
Swinhoe's turtles left alive in China,
the rest of its kind
having been rounded up and eaten.
Sadly, just a few weeks after filming,
this ancient creature died.
The remaining individuals of its species
are currently kept in separate zoos
and Swinhoe's turtle is now
reckoned extinct in the wild.
In fact, most of the 25 types
of freshwater turtles in China
are now vanishingly rare.
The answer to extinction is protection.
And there is now a growing network
of nature reserves
throughout southern China.
Of these, the Tianzi Mountain Reserve
at Zhangjiajie is perhaps
the most visited by Chinese
nature lovers,
who come to marvel
at the gravity-defying landscape
of soaring sandstone pinnacles.
Winding between Zhangjiajie's peaks,
crystal clear mountain streams
are home to what is perhaps
China's strangest creature.
This bizarre animal is a type of newt,
the Chinese giant salamander.
In China it is known as the baby fish
because when distressed
it makes a sound like a crying infant.
It grows up to a metre and a half long,
making it the world's largest amphibian.
Under natural conditions,
a giant salamander may live for decades.
But like so many Chinese animals,
it is considered delicious to eat. Despite being classed as a protected species, giant salamanders are still illegally sold for food and the baby fish is now rare and endangered in the wild. Fortunately, in a few areas like Zhangjiajie, giant salamanders still survive under strict official protection. The rivers of Zhangjiajie flow north east into the Yangtze floodplain, known as The Land of Fish and Rice. On an island in a lake in Anhui Province, a dragon is stirring. This is the ancestral home of China's largest and rarest reptile, a creature of mystery and legend. Dragon eggs are greatly prized. These babies need to hatch out quick! It would seem someone is on their trail. For a helpless baby reptile, imprisoned in a leathery membrane inside a chalky shell, the process of hatching is a titanic struggle. And time is running out.

(CHIRPING)
It's taken two hours for the little dragon to get its head out of the egg. It needs to gather its strength now, for one final, massive push. Free at last, the baby Chinese alligators instinctively head upwards towards the surface of the nest and the waiting outside world.

(CHATTERING)
But the visitors are not what they seem.

(BOOTH SPEAKING CHINESE)
She Shizhen and her son live nearby.
She has been caring for her local alligators for over 20 years, so she had a fair idea when the eggs were likely to hatch. Back home, she's built a pond surrounded by netting to keep out predators, where her charges will spend the next six months until they're big enough to fend for themselves. For the past 20 years, small-scale conservation projects like this are all that have kept China's Just south of the alligator country, dawn breaks over a very different landscape. The 1,800-metre-high granite peaks of the Huangshan or Yellow Mountain. To the Chinese, Huangshan's pines epitomise the strength and resilience of nature. Some of these trees are thought to be over 1,000 years old. Below the granite peaks, steep forested valleys shelter surprising inhabitants. Huangshan macaques, rare descendants of the Tibetan macaques of western China, are unique to these mountain valleys where they enjoy strict official protection. (SCREECHING) After a morning spent in the treetops, the troop is heading for the shade of the valley. A chance for the grown-ups to escape the heat and maybe pick up a lunch snack from the stream. As in most monkey societies, social contact involves a lot of grooming. Grooming is all very well for grown-ups,
but young macaques have energy to burn.

(SCREAMING)
Like so much monkey business,
what starts off as a bit of
playful rough-and-tumble,
soon begins to get out of hand.
The alpha male has seen it all before.
He's not in the least bothered.
But someone, or something, is watching,
with a less than friendly interest.
The Chinese moccasin is
an ambush predator with a deadly bite.
This is one of China's largest
and most feared venomous snakes.
But the monkeys have lived alongside
these dangerous serpents
for thousands of years.

(MONKEYS SCREAMING)
They use this specific alarm call
to warn each other
whenever a snake is spotted.
Once its cover is blown, the viper poses
no threat to the monkeys,
now safe in the treetops.
And life soon returns to normal.

By late summer, the rice fields of
southern China have turned to gold.
The time has come
to bring in the harvest.
Nowadays, modern high-yield strains
are grown throughout
much of the rice lands,
boosted by chemical fertilizers
and reaped by combine harvesters.
This is the great rice bowl of China,
producing a quarter of the world's rice.
Insects, stirred up by
the noisy machines,
are snapped up by gangs
of red-rumped swallows,
including this year's youngsters,
who will have fledged several weeks ago.
This could be their last good feast
before they head south for the winter.
Mechanized farming works best in the flat-bottomed valleys of the lowlands. To the south, in the terraced hills of Zhejiang Province, an older and simpler lifestyle persists.

It's 7: and Longxian's most successful businessman is off to work. In the golden terraces surrounding the village the ears of rice are plump and ripe for harvesting. But today, rice isn't uppermost in Mr Yang's mind. He has bigger fish to fry.

Further up the valley, the harvest has already begun. Yang's fields are ripe, too, but they haven't been drained yet. That's because for him, rice is not the main crop. The baskets he's carried up the hillside give a clue to Yang's business.

But before he starts work, he needs to let some water out of the system. As the water level drops, the mystery is revealed. Golden carp.

Longxian villagers discovered the benefits of transferring wild caught carp into their paddy fields long ago. The tradition has been going on here for at least 700 years. As the water level in the paddy drops, bamboo gates stop the fish escaping. The beauty of this farming method is that it delivers two crops from the same field at the same time. Fish and rice. Smart ecology like this
is what enables China
to be largely self-sufficient in food,
even today.

Back in the village,
Yang has his own smokehouse
where he preserves his fish
ready for market.

Longxian carp have unusually soft scales
and a very delicate flavour,
perhaps as a result of the local water.

Meanwhile, outside the smokehouse,
there's something fishy going on.

(PEOPLE CHATTERING)

To mark the harvest,
the village is staging a party.
Children from Longxian school
have spent weeks preparing for
their big moment.
Everyone from the community
is here to support them.

The rice growing cycle is complete.
By November, northern China
is becoming distinctly chilly.
But the south is still relatively
warm and welcoming.

Across the vast expanse of Poyang Lake,
the birds are gathering.

Tundra swans are long-distance migrants
from northern Siberia.
To the Chinese, they symbolise
the essence of natural beauty.

The Poyang Lake Nature Reserve
offers winter refuge
to more than a quarter
of a million birds
from more than 100 species,
creating one of southern China's
finest wildlife experiences.

The last birds to arrive at Poyang
are those which have made
the longest journey to get here,
all the way from
the Arctic coast of Siberia.
The Siberian crane,
known in China as the white crane, is seen as a symbol of good luck. Each year, almost the entire world population of these critically endangered birds make a 9,000-kilometre roundtrip to spend the winter at Poyang. Like the white cranes, many of south China's unique animals face pressure from exploitation and competition with people over space and resources. But if China is living proof of anything, it is that wildlife is surprisingly resilient. Given the right help, even the rarest creatures can return from the brink. If we show the will, nature will find the way.