

## Environmental Tip (1)

### Damage Caused by Martens



**Bad surprise** in the morning. You want to start your car and it doesn't work. At dusk you might have seen a cat-sized animal sneaking around. Good chance that you became the "victim" of a marten.

#### **MARTENS - BIOLOGICAL FACTS**

Marten, is the name for a mostly carnivorous mammal of the weasel family. Martens are widely distributed in North America, Europe and Central Asia. Representatives of the family are the American marten, the tree marten, and the stone marten, which is the suspect in the above story. Other members of the weasel family are badgers, otters, minks or polecats.



In Germany there are two kinds of martens, which are very similar in their outer appearances - the tree marten and the stone marten. These two species are approx. 75 cm long (including tail), they weigh about 2 kg and have a brown fur with white chest and throat. They can, however, easily be distinguished by their habitat. If you come across a marten in or in the vicinity of a building, it is most likely the stone marten. This species followed human settlement, while the tree marten lives in the woods. Maybe human stone buildings with attics and nooks resemble the caves and crevices of the stone marten's original habitat - rock land **felsiges Gelaende**.

## DAMAGE CAUSED BY MARTENS

In former times, stone martens were not liked by humans because they stole fruits, eggs and chicken, nowadays they pitch into an acquirement of modern life - motor vehicles. Until recently biologists thought that the heat radiation from motors would attract the martens. A new study performed by the University of Giessen resulted in findings that stone martens are extremely curious. During their nocturnal wanderings they also inspect the warm and cozy caves of motor compartments, good places to eat up stolen eggs or cherries or to find shelter from roaming dogs. Just as many other animals, martens mark their territory (Revier) with scents. A car parked in the territory of a marten one night might be moved into the one of another marten the next evening. If the "foreigner" smells the scent of his rival, he will destroy the other's home, which is in our case the motor compartment.

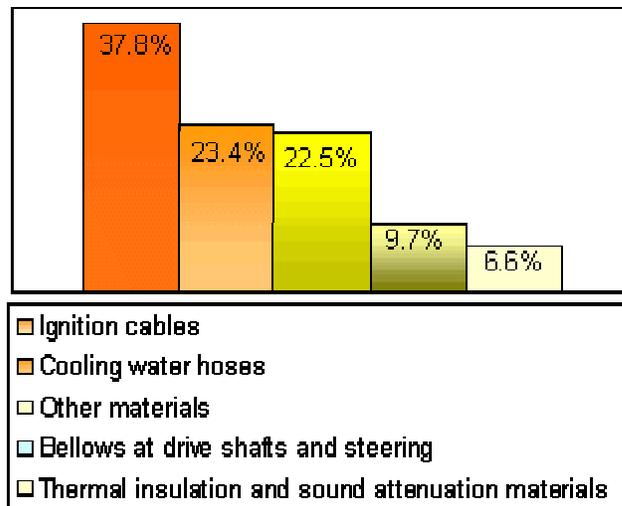


Ninety percent of all marten visits remain without any consequences as stated by the scientists of the University of Giessen. Martens only start ravaging motor compartments when they find the scent of a rival. That's when they use their 38 needle-sharp teeth to bite through ignition cables or to tear up insulation materials. The Giessen biologists reported one case where a car was parked alternatively in two towns with a distance of 20 km. Each time the car holder moved his car, the "local" marten was angry with his rival in the other town and damaged the motor compartment. During a time frame of six weeks, the car holder had to take his car to the garage eight times.



## DAMAGE STATISTICS

(by the German Automobilist Club "ADAC")



With an average of about 350 DM repair costs for a single marten "attack", it is estimated that repair costs amount to approx. 50 to 70 million German marks per year

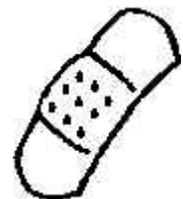
### Preferences in car models

Experts found that martens do not affect all car models to the same extent. The following models were visited preferably: The Renault Megane is the most favorite car within marten families. Statistically, 30 out of 1000 registered Renault Meganas are affected by marten damages, followed by Chrysler Voyager (25) and Ford Galaxy (17 cars).

Obviously, cars with large motor compartments are found to be more comfortable by martens.

## REMEDIES

When you or your neighbor find marten traces on the engine hood or have a marten damage, the first step is to wash your motor thoroughly to remove scents. The next step is to keep martens out of your motor compartments. Use one of the following methods:



**Mesh wire** - just put a piece of mesh wire on the ground underneath your parked car - martens do not like to walk on wobbling ground.



**Cable protectors** - consisting of hard plastic to cover ignition cables. Available in spare parts shops, costs approx. 8 DM / sqm.



**Ultrasound devices** - electrical equipment sending out ultrasounds at various frequencies.



**Marder Protection Sensors** - Electronic device with sensors emitting light electric shocks in the motor compartment.



**Marder Protection Kits** are offered by some manufacturers like BMW or Audi for subsequent installation.. These kits, however, are very expensive.

**Not recommended** are sprays or other fragrances, which are supposed to keep off martens by their scent like dog hair, mothballs, etc. Such scents will be washed off by rain plus martens will get used to the fragrances.



**Note:**

Information taken from the home page of the German Motor Vehicle Club "ADAC".

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# Environmental Tip (2)

## 10 Best Water Conservation Management Practices



### Army adopts Water Conservation – 10 Best management Practices

#### 1. *Public Information and Education Programs*

*Education is the key when implementing new technologies. If we install and use new technology, it is essential that we clearly define what the new technologies are and demonstrate to the users the proper way to use them. Publicizing the use of such conservations measures enhances public awareness and shows our commitment to saving our natural resources.*

#### 2. *Distribution System Audits, Leak Detection and Repair*

*Performing periodic evaluations and analysis of your systems and instituting a leak detection and repair program can help reduce water losses and protect against property damage.*

#### 3. *Water Efficient Landscape*

*Most areas landscapes require additional water to make up for the difference in natural rainfall and precipitation. Installing an irrigation meter would measure the amount of additional water being used on the landscape and would help conserve usage.*



#### 4. *Toilets and Urinals*

*Federal law requires that residential toilets manufactured after 1 January 1994 use no more than 1.6 gallons per flush (gpf) and commercial toilets manufactured after 1 January 1997 use no more than 1.6 gpf. The use of low flush valves, waterless (no flush) urinals, and other alternative technologies can greatly reduce water consumption.*

### **5. Faucets and Showerheads**

*Federal guidelines mandate that all lavatory and kitchen faucets and aerators manufactured after 1 January 1994 use no more than 2.2 gallons per minute (gpm) and showerheads must use no more than 2.5 gpm. Changing your faucets and showerheads to meet federal guidelines would save water consumption and money.*



### **6. Boiler/Steam Systems**

*Performing preventive and routine maintenance on boilers and steam systems would greatly increase operating efficiency. Proper operation of steam traps and steam lines could be ensured through periodic checks and could reduce water consumption and improve boiler efficiency.*

### **7. Single-Pass Cooling Systems**

*These systems use 40 times more water than a cooling cycle operated at 5 cycles of concentration. If economical, replace single-pass cooling systems with multi-pass cooling or closed-looped systems. Other options are to look for other uses for the effluent.*

### **8. Cooling Tower Systems**

*These systems help regulate temperature by rejecting heat from air conditioning systems or by cooling hot equipment. To do this, these systems use large amounts of water. One way to reduce water consumption is to recycle the effluent from a single –pass system and use it in the cooling tower.*

### **9. Miscellaneous High Water-Using Processes**

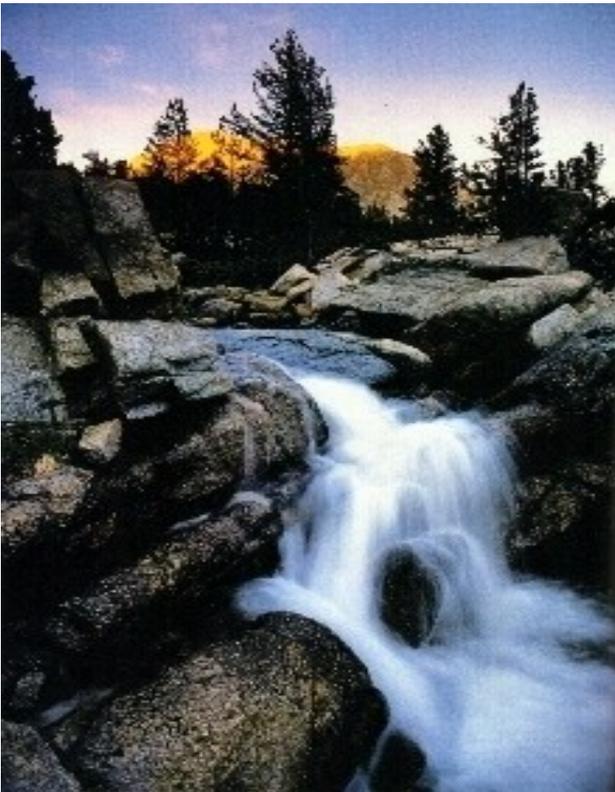
*Such areas as kitchens, laundry/cleaning services, labs, etc. are high water-using processes. Using different methods such as metering or retrofitting equipment with more energy efficient will go a long way toward conserving water.*



## **10. Water Reuse and Recycling**

*By identifying areas that can use non-potable water, installations can take advantage of using filtered by otherwise untreated water. Treated wastewater can be redistributed for non-potable uses.*

*To learn more about the 10 BMPs, please visit the DOE website at:  
<http://www.eere.energy.gov/femp/resources/waterguide.html>*



### ***Water-saving tips***

- *Take shower instead of a bath*
- *Only operate washing machines and dishwashers on a full load*
- *Repair dripping taps immediately*
- *Do not tip paints, varnishes or other chemicals into the drain*
- *When on holiday, especially in countries with water shortages, always use water sparingly*

## Environmental Tip (3)

### Souvenirs



# Help Protect Endangered Species

- Never purchase products made from threatened or endangered species that are illegally sold or marketed. Just because the items are offered for sale does not mean that they are not protected. The shops will sell anything to make money.
- Overseas trips can be exciting and fun, and everyone wants a souvenir. But sometimes the souvenirs are made from species nearing extinction. Avoid supporting the market in illegal wildlife! Talk to your local law enforcement branch of the U.S. Fish and Wildlife Service before you go.
- Illegal trade in wildlife is now the second biggest illicit trade World wide, second only to drugs!
- The message for tourists is to bring back souvenirs that don't cost the earth. We can only stress the importance of careful buying. We all love going abroad and bringing home a souvenir of the places we visit but we have a duty not to destroy what we have gone to see. We hope that after you read this, travelers will think twice about what they bring home
- **Our advice is that if you are in doubt, don't buy. Don't say, "I didn't know it was protected, and besides it was already dead."**
- If caught in possession of a souvenir made from a protected species on return to your home, travelers can expect to pay heavy fines or in serious cases be given a prison sentence. Up to **50,000 Euro and 5 years in prison.**
- Remember if you are unsure about souvenirs, you can always bring home pictures from your vacation. They last forever and do not harm our wonderful plants and animals. Don't help support the destruction of our earth's plant and animal species.

# The most common illegal souvenirs

## Alligator and crocodile products

- **Traditional Chinese Medicine containing tiger, leopard and bear parts, and musk**
  - **Queen Conch shells**
    - **Coral**
  - **Live plants, especially orchids and cacti, or products**
    - **Exotic furs, skins, and clothing**
    - **Live Tortoises, terrapins and products**
    - **Elephant ivory and skin products**
      - **Caviar**
- **Live birds including parrots, macaws, owls, eagles, and all types of parakeets.**
  - **Live snakes, lizards, chameleons and iguanas and products.**
    - **Butterflies**



POC'S: 417th BSB DPW Environmental Department,  
DSN 351-4421, CIV 0931-296-4421

<http://endangered.fws.gov>

# Environmental Tip (4)

## Wasps and Hornets



### Law

All wasp and hornet species are protected by Para. 20 Natural Protection Law (BNatSchG) as common protected animals.

### Habit

- Like bees, wasps and hornets are social and create a colony, or they live a single life (solitary).
- Most species consists of solitary wasps which are of great benefit as flower pollinators and insect eaters. One average colony eats around 3000 to 4000 insects a day! Along with the hornet (*Vespa crabro*), we can find almost one dozen of the so-called ordinary kinds of organized wasp species.
- Wasp colonies consist of male animals, female workers, and one considerably larger queen. Only the impregnated queens hibernate in a hidden shelter. They fly out in spring to find a suitable breeding place and start organizing a colony and egg laying. The queen feeds the larvae with chewed insects after hatching. The larvae become workers which have the responsibility of constructing the nest and supply of food.
- The queen now takes care of the egg laying only. The wasps nourish the larvae with enriched carbohydrate substances like honey (melilot), nectar, pulp (or fruit cake), and albuminous substances.
- At the end of the summer, the female workers raise the males wasps and the young queens. As soon as they hatch, the colony disintegrates. The female workers concentrate their entire activity on the search for sugary food. At this stage they will be a nuisance, but when it gets colder they die.
- Only the big colonies and the common guardian wasp are annoying. Their life cycle lasts until November. The colonies of all other species will disintegrate end of August until mid September. The hornet lives until October.



## What keeps wasps away?

- Do not leave sweet food or drinks laying around outside
- Cover your drinks or food
- not drink out of open bottles. Use glasses with lids and a straw
- Wipe last bits of sweet food from your mouth.
- Do not walk bare-footed.
- Remove fallen fruit.
- Keep trash cans closed tightly.
- Install screens to keep wasps out of your living area, if not existing.
- Insert whole cloves into a lemon or take clove oil and mix with alcohol (1:10). Wasps do not like the smell.

## What to do with a wasp nest?

- Follow these rules if you find a wasp nest close to your home or living areas:
- Stay 2 to 3 feet away (for example do not mow the grass or let children play in the area).
- Fence around the wasp area to keep small children out.
- Do not pick on wasp nests or approach holes for incoming wasps.
- Do not aim jets of water in wasp nest.
- Move slowly in with caution.
- **Do not use insecticides or try to demolish wasp nests on your own! Get professional help!**
- Caulk openings in attics, window frames and around wall penetrations to keep overwintering females out of unused rooms and spaces.
- Take precautions on nest holes and seal problem areas.

- Remove old nests and scrape the print of attachment. This spot is often selected by new queens for attachment of new combs.

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# Environmental Tip (5)

## Battery Disposal



- **Battery Disposal**

**Don't dump** used batteries into **regular trash** bin!



Batteries, res. used batteries contain acid and are considered hazardous waste. To dispose of batteries in an environmentally safe manner, German law requires you to dispose of used batteries at appropriate collection points or return them to the vendor.

*COLLECTION CONTAINERS ARE LOCATED AT:*

**HOUSING AND BASE SORT YARDS**

**AAFES SHOPPETTE**

**PX**

**COMMISSARY**

**MWR CAR WASH**

# Environmental Tip (6)

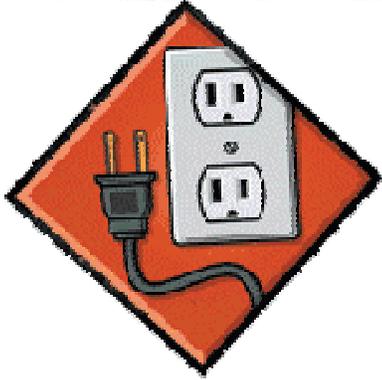
## Water- and Energy Saving



- **Water-Saving Tips:**
  - **Take a shower instead of a bath**
  - **Only operate washing machine and dishwashers on a full load**
  - **Repair dripping taps immediately**
  - **Do not tip paints, varnishes or other chemicals into the drain**
  - **When on holiday, especially in countries with water shortages, always use water sparingly**
  
- **Energy Saving Tips:**
  - **Turn off lights when not needed**
  - **Turn off any electrical appliances when no longer in use**
  - **Don't leave your TV and/or PC on "Stand-by" mode - TURN THEM OFF**
  - **Use ENERGYSAVING light bulbs**
  - **Use one high capacity bulb vs. many low capacity bulbs (dim lights)**
  - **Use a water boiler for the required amount of water to heat it**
  - **Defrost your refrigerator/freezer on a regular basis (don't let it become icy)**



➤



➤ Purchase energy saving appliances

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# Environmental Tip (7)

## Fuel Saving



- **Tips for Saving Fuel**
  - **When purchasing your car look for energy saving and environmentally friendly features**
  - **Avoid driving short distances. Up to approx. 4 KM the fuel consumption of your engine is extremely high. Why don't you do something for your well-being and ride your bike or walk.**
  - **Use public transportation within city limits**
  - **Don't warm up your car's engine. Letting your engine idle for 3 minutes uses as much fuel as driving 0.5 KM.**
  - **When stopping more than 15 sec. it's worth turning off you engine**
  - **Don't carry unnecessary luggage in your trunk. It increases your fuel consumption.**
  - **Quickly shift into higher gears, drive at low revolution.**
  - **Ensure regular inspections of your car. This reduces the ware and tare on your car and reduces fuel consumption.**
  - **Clean Air filter reduces fuel consumption.**
  - **Check spark plugs.**
  - **Check tires for proper air pressure – it also reduces fuel consumption and ware and tare.**
  - **Use the air condition only during long tours. Air condition causes a higher fuel consumption on short distances.**



- **Don't turn up your radiator and leave your windows open. Turn down your radiator during night time or when not at home.**

**[http://www.eia.doe.gov/emeu/efficiency/energy\\_savings.htm](http://www.eia.doe.gov/emeu/efficiency/energy_savings.htm)**

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# **Environmental Tips**

- 1. Damages caused by Martens**
- 2. 10 Best Water Conservation Management Practices**
- 3. Souvenirs**
- 4. Wasps and Hornets**
- 5. Battery Disposal**
- 6. Water and Energy Saving**
- 7. Fuel Saving**
- 8. Stop Ideling Cars**

# Environmental Tip (8)

## Stop Idling Cars



# STOP



Keep  
our planet  
clean... .. and **your**  
neighbors  
happy.

### Don't forget!

- **Idling** is strictly **prohibited** according to Paragraph 30 of the German Road Traffic Regulations (StVO).
- **Idling pollutes** the environment by **emission** of carbon monoxides, oxides of nitrogen and volatile organic compounds.
- **Idling** adds to the **green house effect, destroys the ozone layer and increases the ozone content** of the air we breathe.

Example: A gasoline-fueled passenger car idling for one hour produces an average of  
21 grams of volatile organic compounds  
6 grams of carbon monoxide  
6 grams of oxides of nitrogen