

# YOGA IN THE HEART OF THE WETLANDS



## Namasté !

*This trail will help you care for your body, become supple and strong, release tension and calm your emotions.*

■ Feel revived, spending time just for you...

- Each stage includes a suggested yoga pose,
  - It's essential you focus on your breathing above all else and let your thoughts drift away,
- Take time to do your yoga pose once, three or seven times,
- Never force it, always be kind to yourself.



## Sun salutation

■ *Surya Namaskar*



*To start...*

Gently awaken your body and energize your mind !



## Make the most of nature

■ The wetland is teeming with animal and plant species particular to this environment.

As you are doing your yoga exercises, discover about biodiversity and the ecological benefits of maintaining wetlands.

### Small aquatic creatures

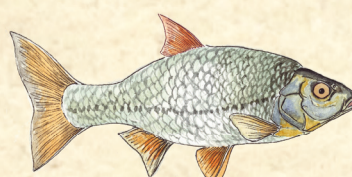
■ The stream has a **rich environment**, made up of many plants and animals. The presence or absence of "small aquatic creatures" gives an indication of **water quality**.



**Diatoms** : : diatoms are **single-cell** microscopic algae. Their sensitivity to pollutants makes them good indicators.



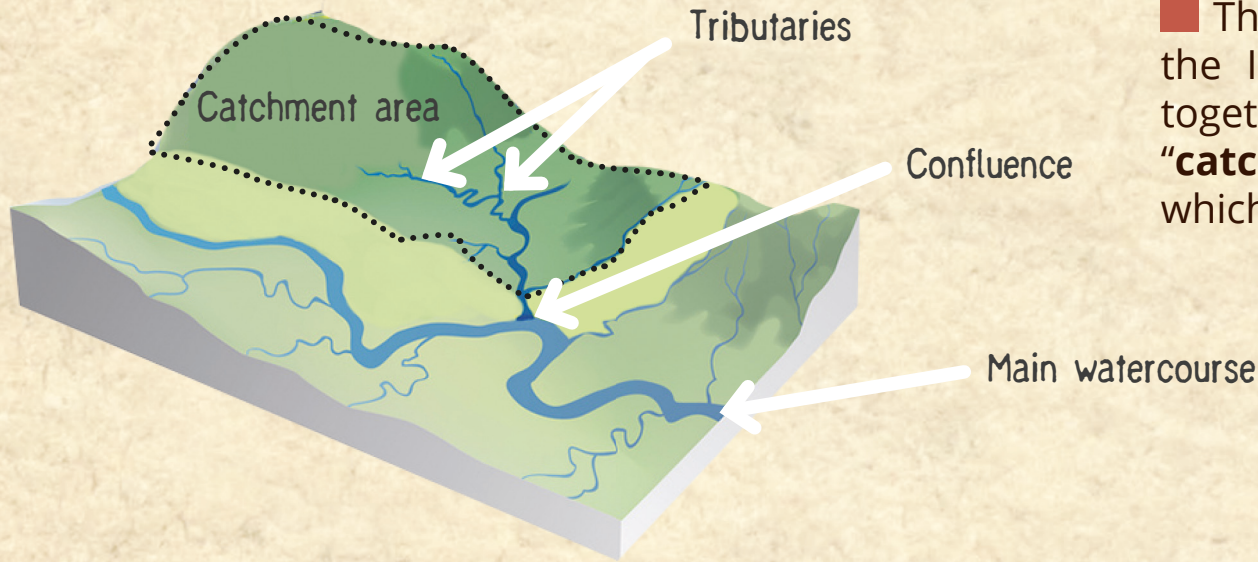
**Invertebrates** : these are all the **small organisms** visible to the naked eye. Some of them are more tolerant of pollutants than others.



**Fish** : the quantity and variety of fish species are an indication of the varying quality of habitat.

# The Noir, a tributary of the Salembre

■ The Noir is the stream flowing through Saint-Aquilin. Its source is at Boisset Abbey and it joins the Salembre 2.5 km further on at the Étang des Garennas lake (=confluence).



■ The Salembre is a tributary of the Isle. All these watercourses together constitute the "**catchment area**" for the Isle, which then joins the Dordogne at

# Riverbank vegetation



■ It is known as the “riparian” forest or zone. It fulfils multiple varied, complementary functions which help maintain the health of the watercourse. The Syndicat Mixte des Berges de l’Isle has developed a management plan.

Foliage provides shade and **lowers the temperature** of the water in summer.

The roots capture chemical and pharmaceutical products stemming from human activity, thus acting as a **skimmer filter**.

They support the banks and **thus limit erosion and flooding** by reducing the strength of the stream.



*Alnus glutinosa*

# TREE POSE

■ *Vrikshasana in Sanskrit*



## The practice

- 1 ■ Breathe in as you lift one leg to place your foot against the inner thigh of your other leg. Hold briefly, maintaining the pose.

### Basic pose



### Advanced option



- 2 ■ Breathe out, hands in prayer position in front of your chest. Breathe in as you raise your hands, stretching your arms up to the sky.

## Benefits



### Physical

■ The pose tones and strengthens muscles in the **ankles, knees, legs and feet**. It works on the **core** and opens up the hips. Excellent for stimulating the **digestive organs**.



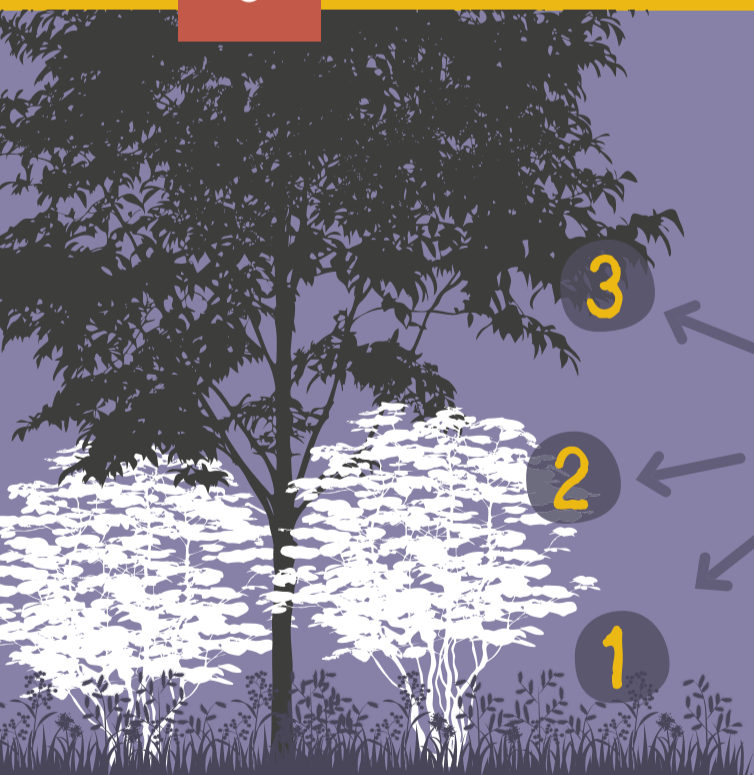
### Psychological

■ The ultimate balance pose for increasing the ability to **concentrate** and calming the mind. This pose helps improve the **circulation of energy** through the body. Practice it in the morning to feel its benefits throughout the day.

*No contraindications!*



## From tree to hedgerow



*The different strata*

■ The country hedge is the traditional hedge of the rural landscape. It is typified by the variety of species of which it is comprised and by the stratification of the vegetation. It plays a major ecological role in regulating and purifying water, acting as a reservoir of biodiversity, purifying the soil and serving as a windbreak.

### 3- The tree stratum

■ This is made up of **tall trees** (common oak and ash, etc.). It acts as refuge and protection for birdlife. **Nocturnal birds of prey** and some **bat** species use hollows high up in these trees.

*Quercus robur*



*Athene noctua*



# 1- The herbaceous stratum

■ This is generally made up of **flowering species**, grasses and leguminous plants. Through the humus that builds up there, it constitutes a **carbon sink** and a store of organic matter, providing a habitat for a rich invertebrate fauna.



*Erinaceus  
europaeus*

It plays a role in regulating water, supplying the water table (= groundwater) and preventing soil erosion.



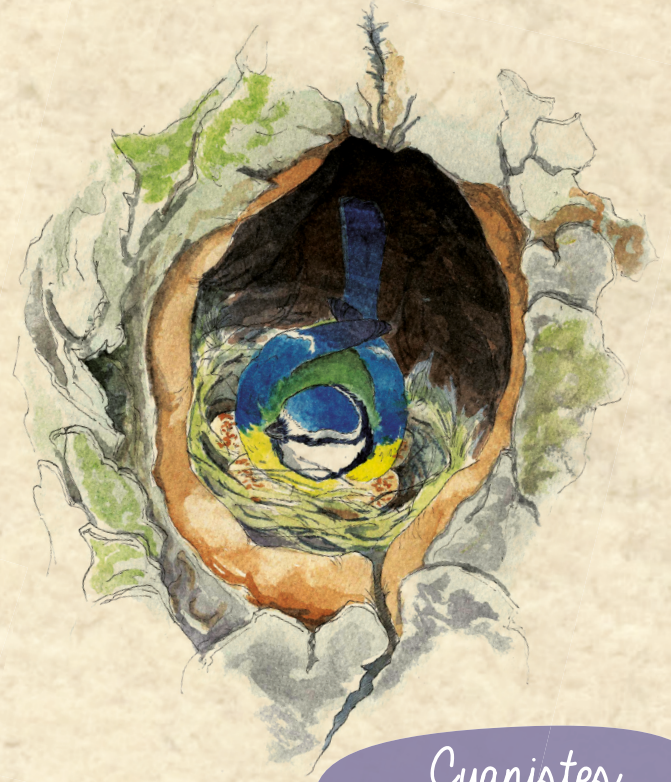
*Malva  
sylvestris*

## 2- The shrub stratum

■ This is made up of **shrubs**, broadening the hedge and making it thick and bushy. Many **berry-bearing varieties** provide shelter and cover for pigeons, doves and passerine birds.



*Monogyna  
De Crataegus*



*Cyanistes  
caeruleus*

# LIZARD POSE

■ *Utthan Pristhasana in Sanskrit*



## The practice

### Basic pose

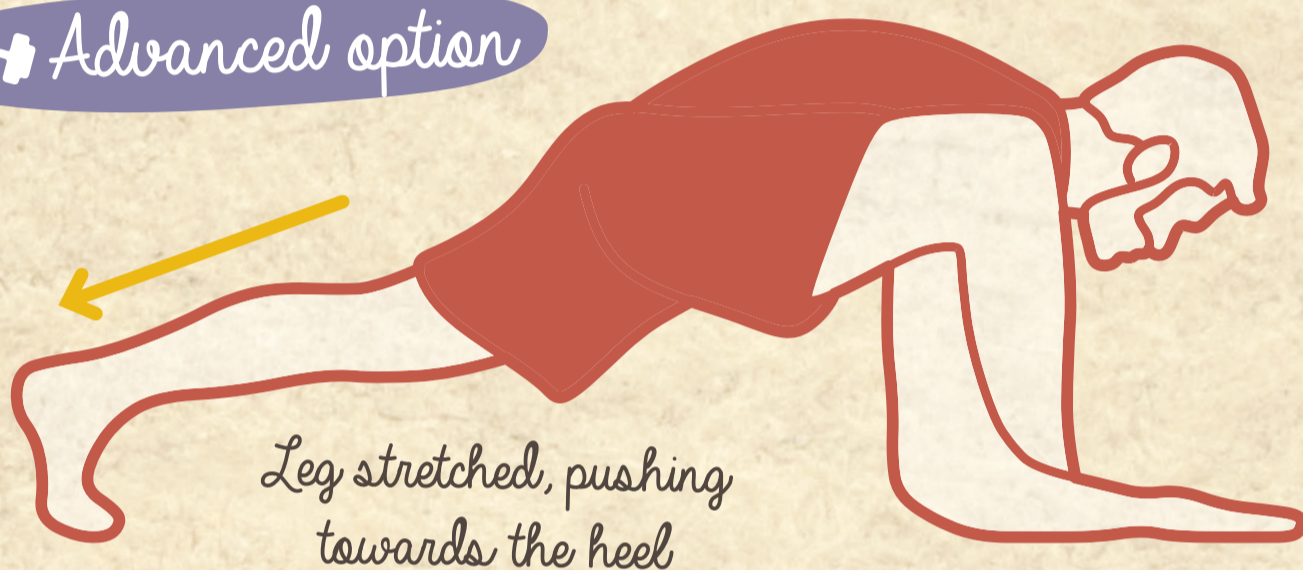
*Knee stays in contact with the ground*



- 1 ■ Starting on all fours, bring one leg forward, in line with your shoulders. Extend your other leg back.



### Advanced option



*Leg stretched, pushing towards the heel*

- 2 ■ Hold the basic pose and stretch out the leg that is on the ground. You can also slide your forearm under your bent front leg.

## Benefits



### Physical

■ In this pose, you stretch your hips, abdomen and spine, which helps improve **the blood circulation** in this area and helps strengthen you. You also stretch your calves and hamstring muscles, which exerts additional pressure on the ankle, hip, knee and thigh muscles, which will be strengthened!



### Psychological

■ In addition to improving your digestion, the Lizard pose is also recommended for **reducing stress and anxiety** and for **stimulating the reproductive organs**.

## Contraindications

- back, hip, ankle or knee injuries and any kind of hernia,
- spinal pain, especially in the lumbar region,
- high blood pressure, low blood pressure or severe headaches.



## Wetland fauna



■ The lizard is a cold-blooded animal, not often found in wetlands, which are, by definition, cooler. However, these areas are nevertheless home to some **reptiles** and many **amphibians**.

### Fire salamander

*Salamandra salamandra*

■ The salamander is not very agile, moves slowly and is easily recognisable by its colouring. Like the lizard, it can **regenerate** lost or injured body parts. It **reproduces on land**. Once the eggs have hatched, the female goes into the water to deposit the larvae.



*Adult salamander*



*Salamander larvae*

# European pond terrapin

*Emys orbicularis*

■ This is France's **only native turtle** species and its population is in **constant decline** because of the growing scarcity of wetlands and competition from red-eared terrapins, introduced in the 1970s.



Pond terrapin

In French, it is also called "**boueuse**" or "**bourbette**", meaning "**muddy terrapin**", because of its preference for muddy areas.



Red-eared terrapin  
*Trachemys scripta elegans*

# Barred grass snake

*Natrix helvetica*



■ This is a reptile associated with wetlands as it finds the **bulk of its diet** there, consisting of aquatic vertebrates (amphibians and fish). It is not dangerous to humans as, like all grass snakes, **it does not produce any venom.**

It can be mistaken for other species of grass snake, also commonly found in wetlands: the **dice snake** and the **viperine snake.**

# LOCUST POSE

■ *Salabhâsana in Sanskrit*



## The practice

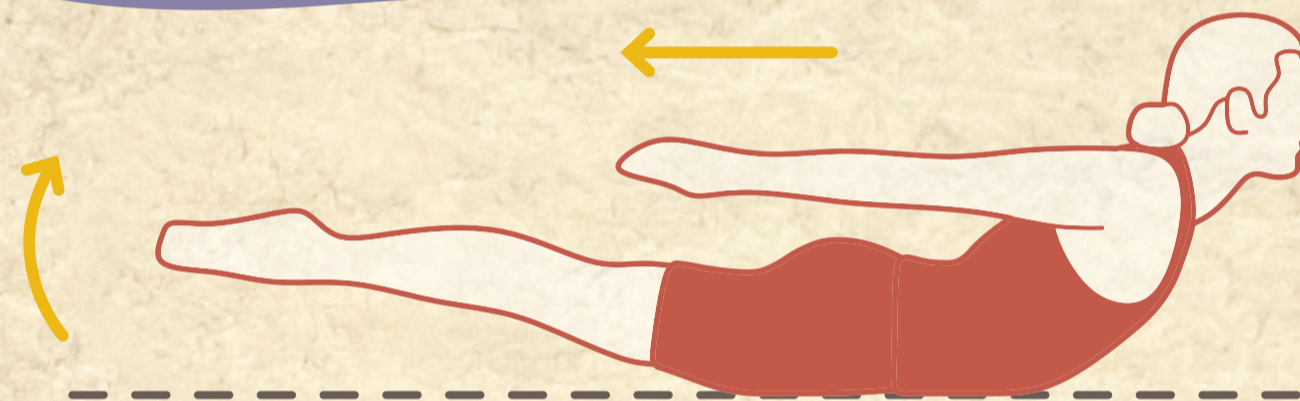
### Basic pose

- 1 ■ Lie on your stomach, arms by your side, with fists clenched and forehead touching the ground. Push down with your pelvis.
- 2 ■ Inhale as you raise your chest and one leg, exhale as you lower yourself back down, then inhale again as you raise the other leg.



### Advanced option

Up we go !



- 3 ■ Adopt the basic pose and stretch your arms behind you.

## Benefits



### Physical

■ The locust pose works the **back muscles especially and greatly strengthens them**. It also reinvigorates the solar plexus and **restores balance to the intestinal function**. Excellent pose for sorting out problems with constipation.



### Psychological

■ On the emotional side, it has a powerful effect on the development of **self-control** and is an **antidote to apathy and depression**. It helps balance all of the body's energy and stimulates it.

## Contraindications

- sciatica,
- cardiac problems,
- pregnancy,
- asthma,
- curvature of the spine,
- glaucoma.



## Wetland insects

■ There are many insects specific to wetland regions. They are typified by an aquatic larval phase and an aerial adult stage spent nearby (odonata, mayflies, trichoptera, etc.). Other species are specific to these areas due to the presence of wetland plants.

## Mayflies, trichoptera and mosquitoes !

### *Ephemera vulgata*



Larvae

Adult

■ These insects all have something in common: they spend their **larval phase in water** and their **adult phase out of water**. **Water quality can be estimated** based on their presence or absence. Mayfly larvae are a good indicator of water quality.

### *Phryganea grandis*



Larvae

Adult

### *Culex pipiens*



Larvae

Adult

# Odonata

■ These are more commonly called **dragonflies** or **damselflies**. Depending on the species, the larvae can spend between 1 and 5 years in the water and are **formidable predators!** They eat other larvae, tadpoles and other aquatic animals.

They **metamorphose** into dragonflies (= mature phase) on aquatic plants. Their aerial life lasts only a few months.



*Coenagrion puella*



*Sympecma fusca*



*Aeshna mixta*

# Lepidoptera

■ They go more by the name of **butterflies**. First as **caterpillars**, then as **chrysalis** and finally as **butterflies**, lepidoptera are present in many different environments, including wetlands, where the presence of **flowering plants** guarantees them food and egg-laying opportunities. The names of certain species relate to a specific plant or habitat such as the **Marsh Fritillary**.



*Damier de la Succise*  
*Euphydryas aurinia*



*Machaon*  
*Papilio machaon*



*Robert le Diable*  
*Polygonia c-album*

# MOUNTAIN POSE

■ *Tadasana in Sanskrit*

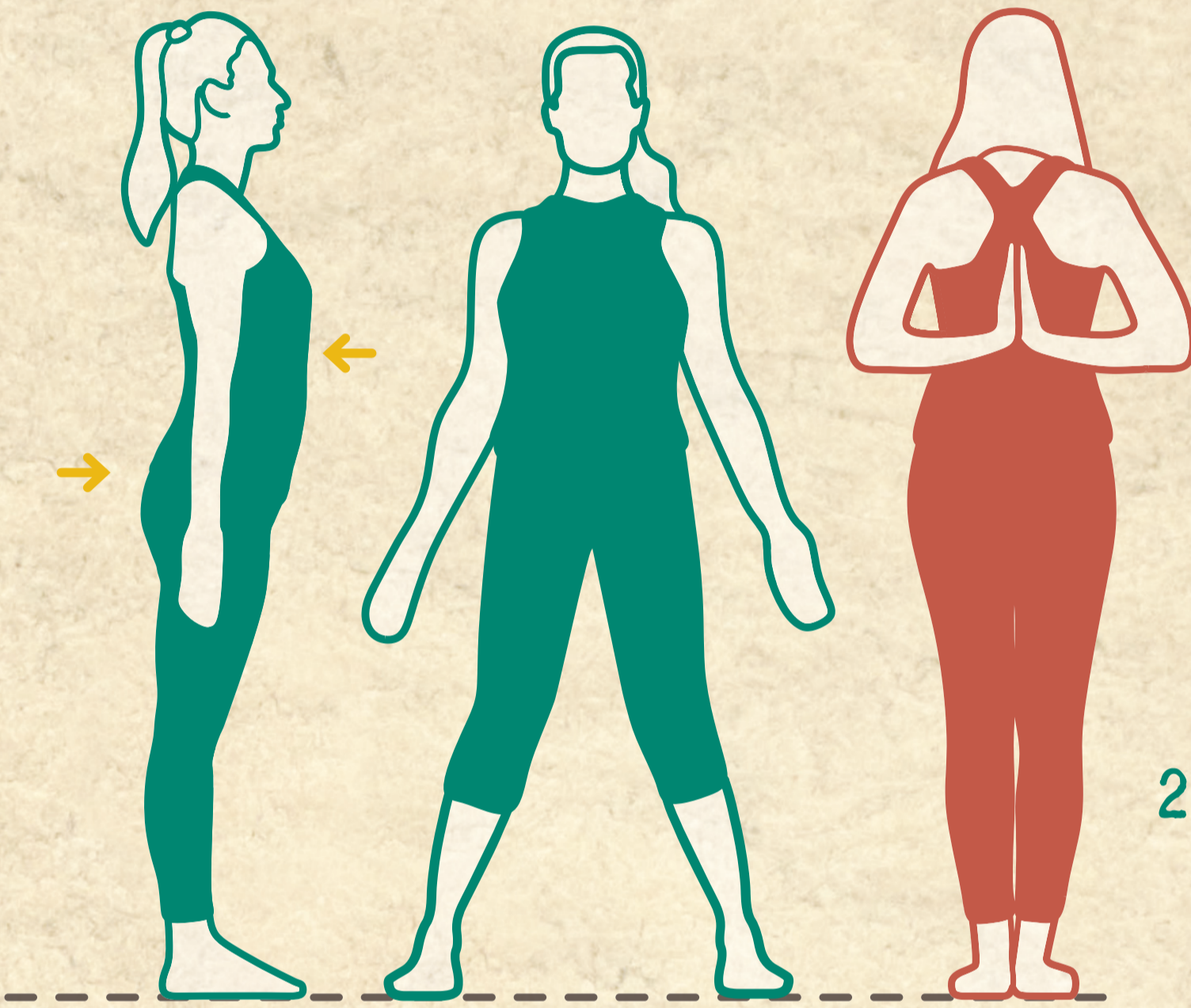


## The practice

- 1 ■ Feet firmly planted, leg muscles engaged and knees straight but not locked. The pelvis is tilted back and the shoulder blades are rolled back. The arms are turned so palms are facing out, cervical vertebrae are aligned, eyes are looking straight ahead and chin is tucked in.

Basic pose

Advanced option



## Benefits



### Physical

- The mountain pose is one of the **fundamental poses** in yoga: before walking, you have to learn to stand. This pose is all about aiming to **become aware of your body** and **correcting spinal posture**.



### Psychological

- The foothold must be **solid**, like a mountain, for you to achieve the sense of a **calm and peaceful mental state**. Finally, you become unshakeable, like a mountain, and able to concentrate better.

*No contraindications !*

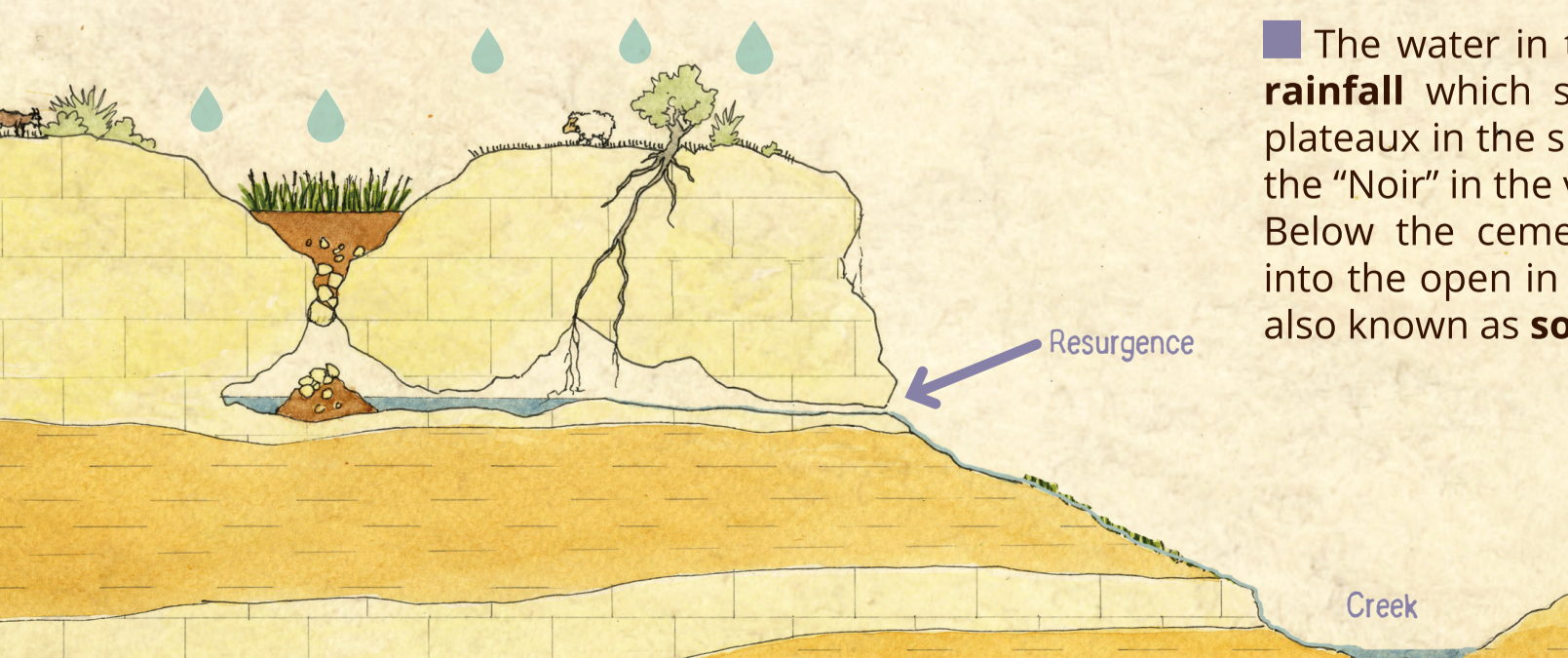
- 2 ■ Hold the basic pose and bring your hands together behind your back in the prayer position.



## Wetlands: where does the water come from?

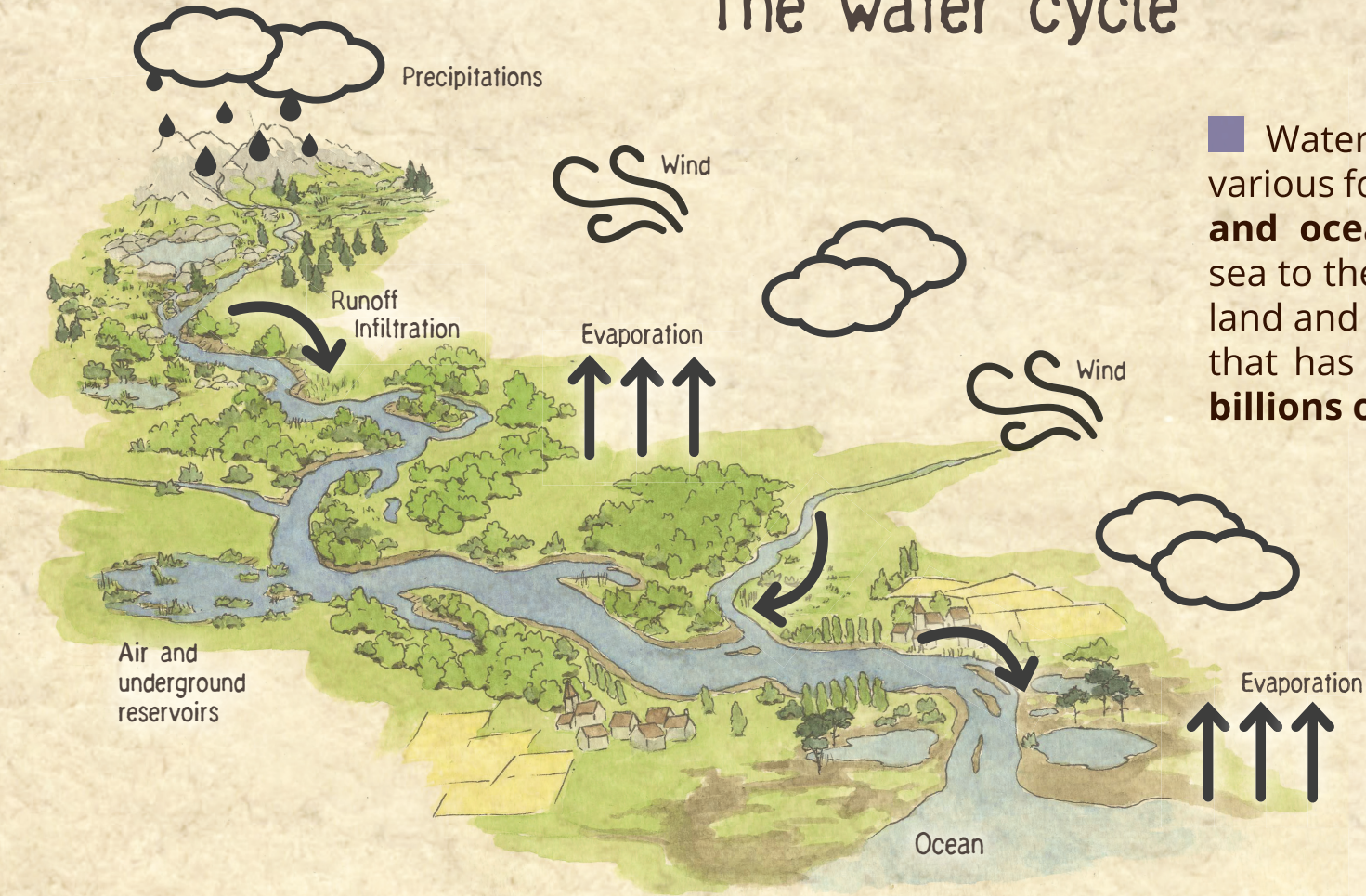
- Water is essential to all life on earth. The presence of the stream and springs justified human settlement in the Saint-Aquilin valley. It is a precious resource which it is important to preserve.

### Wetland water sources



- The water in the wetlands comes from **rainfall** which seeps over the limestone plateaux in the surrounding area and joins the "Noir" in the valley. Below the cemetery, the water emerges into the open in the form of **resurgences**, also known as **sources** or **springs**.

# The water cycle



Water circulates on earth in various forms: **clouds, rain, rivers and oceans**. It passes from the sea to the atmosphere then to the land and back to the sea, in a cycle that has been repeating itself for **billions of years** !

## Saint-Eutrope's spring



■ Since neolithic times, springs and water sources have often been the subject of **worship and religious devotions**.

In Saint-Aquilin, religious devotions used to be held at Saint-Eutrope's spring on **30<sup>th</sup> April**.

The spring was said to have **curative properties** for children. **Boxwood branches would be soaked** and taken to the cowsheds to **protect the cattle**. Young girls would come here to engage in private prayer for the saint to intercede and **find them a good husband !**

# LOTUS POSE

■ *Padmasana in Sanskrit*



## The practice

### Basic pose



- 1 ■ Sit cross-legged, with your back straight. Hands resting on your knees.

### Advanced option



- 2 ■ Hold the basic pose, bring hands together in front, at chest height, in the prayer position, and bring each foot up onto the opposite thigh.

## Benefits

### Physical

■ This pose works on **opening up the hips** and also has an effect on the **flexibility** of joints, ligaments and muscles. Maintaining good posture, with a **well-aligned spine**, aids deep, relaxing breathing. This is also often the preferred pose for **practising meditation**.

### Psychological

■ Conducive to **concentration** and effective against anxiety, phobia and stress, **bringing a sense of relief and calm** (recommended after a stressful day).

## Contraindications

- sciatica,
- hip problems,
- injury or impact to ankle,
- injury or impact to knees.



## Wetland flora



■ Wetlands have a varied flora with differing requirements, depending on the depth of the water, nature of the ground and type of soil. These areas are real biological reservoirs, with vegetation consisting of hygrophilous plants (= preferring moist soil).

## Heritage species

■ Certain plants are regarded as “**heritage species**”. These are plant or animal species that scientists deem important for **ecological, scientific** or **cultural reasons**. They are often species that are **typical** of their habitat.



*Althaea officinalis*



*Butomus umbellatus*



*Typha latifolia*



*Iris pseudacorus*

# Helophytes

■ These are plants which only have their **roots underwater** or in very damp ground.

Their **vegetative and reproductive systems are above the water.**



*Carex flacca*



*Mentha aquatica*



# Hydrophytes

■ These are plants that live partly or entirely **immersed in water** for most or even all of the year.

Some **float** like duckweed, while others are **rooted in the soil** with floating or completely immersed leaves.



A watercolor illustration showing three types of hydrophytes. On the left, a plant with long green leaves and yellow flowers (likely an iris) grows out of a sandy bank. In the center, a circular inset shows a plant with long, thin stems and small pink flowers growing out of the bottom of a body of water. On the right, a plant with small purple flowers grows out of the water.

*Lemna minor*



A photograph of Lemna minor, a small, green, oval-shaped floating aquatic plant, densely packed on the surface of dark water.

*Callitriche stagnalis*



A photograph of Callitriche stagnalis, a small, green, oval-shaped floating aquatic plant, densely packed on the surface of dark water.