

# POND CONSTRUCTION

## INFORMATION LEAFLET

### POND SETTING

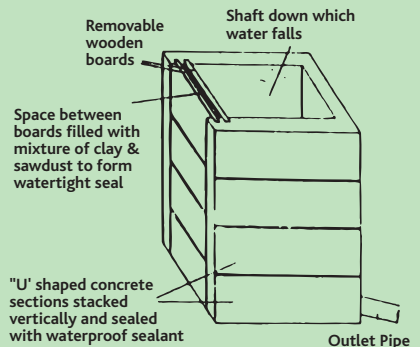
The ideal site for a collection of wildfowl is probably a fairly extensive garden with natural running water. Wildlife enjoy basking in the sunshine but appreciate shelter from strong winds. Because ducks in particular spend a lot of time on the water a sunny and sheltered position for their pond is favoured. However, a pond should not be sited under trees where falling leaves can sink and accumulate as debris.

If a pond can also be seen from one of your windows then all the better. The word "paddlinge" is a medieval collective noun and describes a pool on which ducks, presumably domestic, were kept to help combat any threatening stress in the life of the keeper. Even our distant forbears must have recognised the therapeutic quality of waterfowl on a pond just outside their equivalent of a sitting room.

### NATURAL PONDS

A pond is usually preferable to a river or a stream so, if you have running water it should be diverted to form a pond or lake. However, before interfering with a natural watercourse, or even pumping, it is advisable to consult the local Environmental Agency Officer, as there are regulations in force concerning water abstraction and related activities. The water level flowing out of a pond, possibly between a series of ponds, can be controlled by the use of a "monk" (see diagram 1).

A monk is a construction which is used mainly on fish farms since it enables the water level to be lowered relatively easily. The water normally falls over the top of the monk and is led away through an outlet pipe either to a lower pond or a series of ponds. Removal of the front boards leads to rapid lowering of the water level when pond maintenance or dredging is required, or if fish are to be caught! Where there is a neglected existing pond it should be dredged as deeply as possible for diving ducks, with shallower areas for the dabblers. A natural pond does not require any lining but it is frequently desirable to protect the edges from erosion since the bills of wildfowl can be very destructive.



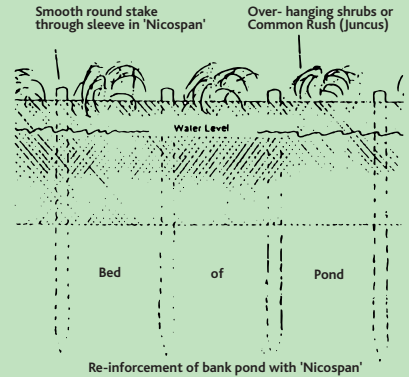
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Rough concrete or carefully laid stones form a permanent protection to banks but all crevices should be sealed. Ducks in particular have a dangerous and sometimes fatal habit of dabbling in holes and cracks and getting their heads wedged so that they drown or are strangled.

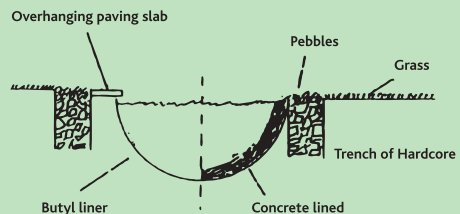
There is the market a black nylon type mesh (Nicospan) which can be staked alongside the banks as a protective barrier (see diagram 2). In theory, vegetation grows through this revetment so that it becomes disguised, but in practice any leaves are eaten or mutilated as soon as they appear. However, it is possible to plant more substantial overhanging shrubs which droop and form a camouflage. Even hardy plants with woody stems are likely to require protection from inquisitive bills in the early stages of growth. Secure them with a circle of wire netting of one-inch mesh.



### ARTIFICIAL PONDS

If natural water is not available, satisfactory small ponds can be of fibreglass or concrete or lined with butyl (see diagram 3). The former is relatively expensive and is generally only readily available in very small sizes.

Concrete is renowned for its permanence so long as it is thick enough – at least 4 inches is recommended. If possible the base should be laid a few days before the sides, and the joints should be rendered watertight with a proprietary bonding or sealing compound. Only the heaviest gauge of butyl should be installed as a wildfowl pond liner since the claws on the toes of the birds are sharp. An overhanging edge of paving slabs not only screens the top of the butyl from the human eye but it also protects it from damage as the waterfowl scramble ashore. A properly installed and cared for liner should have a life expectancy of at least ten years.



### WATER MAINTENANCE

The greater the depth of an artificial pond, the easier the maintenance because sediment settles to the bottom and, if deep down, it is only disturbed if divers are present. The water, generally provided from a tap if the pond is not natural, must be reasonably clean so that the birds' plumage is well groomed and in order that the eye and nose of the keeper are not offended. A soak-away can readily be incorporated in a concrete pond and if a pipe, of not less than three inches in diameter, with a threaded end is placed through the lowest point of the base, the cap can be unscrewed and the entire contents allowed to drain away. The removal of the cap can be an unpleasant chore but with a little practice it can be achieved without the operator's arm

being immersed in a dark coloured, often smelly and sometimes cold, solution for too long a period. Thereafter, vigorous agitation with a broom should ensure that the solid particles disappear down the pipe, along with the liquid. The more enterprising entrepreneur will install a release mechanism which can be operated from above water level. A vertical tube projecting a few inches above the level of the water is ideal.

Where the depth of an artificial pond is at least three feet, with some ledges around the margins for the convenience of the dabbling ducks, the frequency of cleaning out can be considerably reduced since much of the solid material settles to the floor. Small ponds can be cleaned by bailing out with a bucket but this can be quite a strenuous exercise if an appreciable amount of water is involved. Siphoning can also be employed but this is usually too slow a process to be practical. Pumping is therefore most practical but care must be taken to ensure that sediment does not block the mechanism. Agitation of the sediment should ensure the mixing of the solids with the liquid so that the pump can cope.

Some care may be necessary where a large emptied pond is being refilled only very slowly. The birds will undoubtedly return to the water as soon as they can and if the sides of the pond are steep they will have difficulty in getting ashore until the water has returned to its natural level. The once happy swimmers may wish to leave the water whilst the level is still low and during their frantic attempts to escape they may become exhausted and perish. A temporary fence, erected around the pond until it has refilled will avoid potential disaster. Of course a raft in the pond, on which the birds can perch, will provide refuge until dry land is again accessible.

## **RAFTS AND ISLANDS**

Rafts and islands can be interesting and welcome features on all but the smallest ponds. Boards, say one inch thick, can be secured together with battens to form a floating island which serves as an admirable roost. Buoyancy can be maintained by the fixing of partially filled plastic containers on the underside so that they are hidden from view. If the buoyancy is adjusted so that the water overlaps the surface from time to time, for example when several ducks are roosting simultaneously so that their combined weight is sufficient to depress the raft, the upper surface will be cleansed of faeces.

A well-designed island is a tremendous asset for a collection of wildfowl in captivity. However, in the same way as banks may need protection from erosion by beaks so also will islands. Whether left to natural growth or judiciously landscaped, the birds will benefit from the seclusion and relative safety from certain predators that the vegetation and comparative isolation will provide. The birds can be encouraged to nest on an island by the provision of nest boxes and by allowing undergrowth to flourish, but if eggs are to be collected then accessibility must be borne in mind.

## AVIARIES

An increasingly popular method of keeping wildfowl in captivity on a small scale is to house one or two pairs in an aviary, not infrequently alongside various cage birds. Mandarins, Carolinas and several species of Teal such as Ringed and Hottentot appear to adapt fairly readily to such confinement and an advantage is that they can be free-winged. Few, if any, of the little cage birds are likely to interfere with the ducks but careful choice may need to be exercised to ensure that the latter do not disturb the smaller inmates, particularly if the ducks are able to fly.

An aviary pool which is three or four feet in diameter and only ten or so inches deep should be adequate for one pair of ducks. If it takes the form of a concrete lined depression the water can be swept out almost daily without too much effort. The surrounding area must be pervious and topped with loose small stones, such as pebbles so that the water can drain away. However, the ducks are likely to pick up and play with small pebbles around the pond. Some pebbles will be dropped into the water so care must be taken if emptying the pond through a drain in the base.

Shrubs can be planted in the aviary to provide some privacy but the poisonous laurel should of course be avoided. Nest boxes for the hole nesting ducks are essential if breeding is contemplated. Aviary birds are safer from predators than when in an open enclosure and within such a sheltered environment breeding results are often very satisfactory.

## OTHER INFORMATION

This leaflet is only a brief introduction and the successful husbandry of all livestock depends on being well informed about them. The BWA Bookshop sells a number of specialist publications which cover all aspects of keeping both Wildfowl and Domestic Waterfowl. All new keepers are strongly advised to obtain a book appropriate to their interest. Leaflets in this series available from the BWA Secretary price 25p

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