Introduction. Metal detecting at a swim beach or in the beach water is one of the major detecting attractions in the hobby. Generally, there are very specific detector requirements for metal detecting on freshwater and saltwater beaches, however, target recovery scoops can be used on either type of beach and in fresh or salt water.

A common target recovery tool used at the beach is a sand or water scoop. The scoop will have a basket or bucket with holes in the basket to filter the sand, a cutting edge and a handle to grip the scoop. There are many different types of scoops and each type will have some positive and negative attributes. Scoop price can also be a very important factor in purchasing a scoop; however, getting the right scoop regardless of price is very important since recovering targets from the beach or in the water can at times be very difficult.

Fig. A - Short Handle Sand Scoops

Fig. B - Straight Handle Sand Scoops

Fig. C - 20 Degree Angle Handle Sand

There are two basic types of scoops.
Scoops used in the beach dry sand and occasionally in the wet sand usually have short handles, wire mesh screen for the basket and a steel cutting lip wedded to the mesh basket. The basket size for a sand scoop can be from four to five inches in diameter and may hold one to two quarts of sand.

Scoops used in wet sand and the water are usually constructed of stainless steel or aluminum with a handle length of 42 to 48 inches. The bucket size will range from five to six inches in diameter and nine to twelve in depth.

Keep in mind that one quart of wet sand weights 4.3 lbs and the larger the scoop you have the greater weight you will be lifting. Sand weight is an especially important attribute to consider before purchasing a very large bucket (6x12 or larger) water scoop.

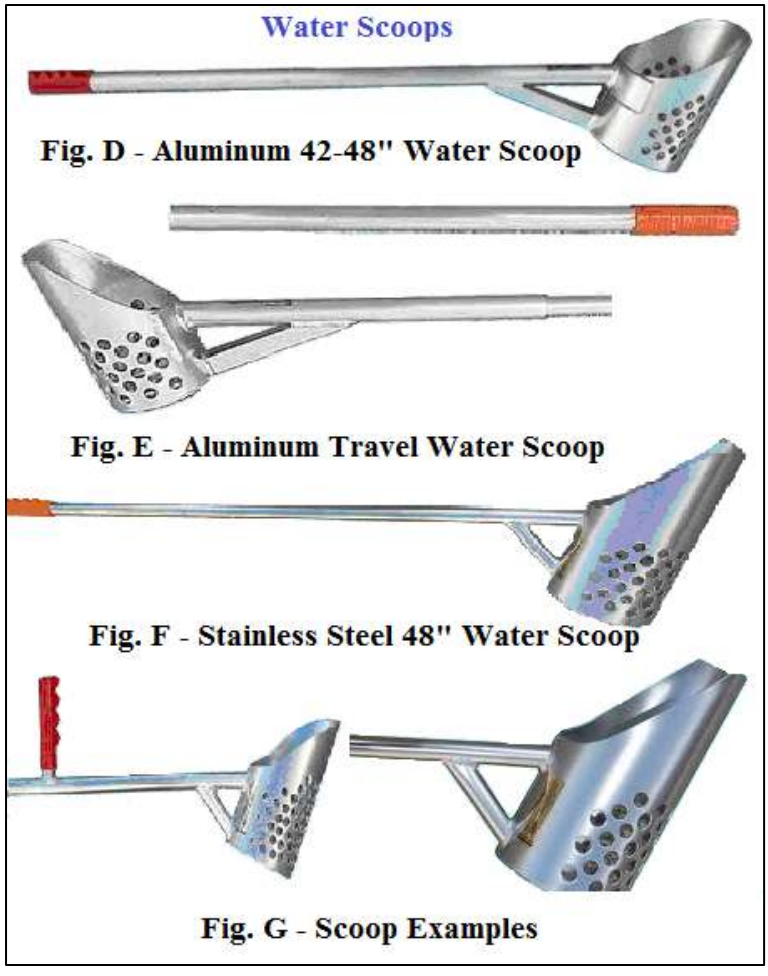
Sand Scoops. This type of scoop can be constructed of plastic, galvanized steel, aluminum or stainless steel. The basket size will usually range from four to five inches in diameter with holes for filtering out the sand of one / half inch in diameter. The holes in the basket can be either square or circular.

Sand scoops will usually range in price from $20 to $40 depending on the design of the basket, material used and length of the handle.

In Fig. A there are four sand scoops, each of these scoops has a handle directly mounted to the scoop basket. The four scoops in the figure are either plastic, galvanized steel or stainless steel. The issue with these scoops is that they should only be used in dry sand. There is just no leverage of your swinging power since the handle is mounted directly to the basket. Another issue is that all of the sand's resistances against the scoop's basket are transmitted to the detectorist wrist and lower arm. Over a period of time the wrist and lower arm can become sore.

In Fig. B you will find photos of two 90 degree straight handle sand scoops. The first scoop has a handle extension while the second scoop has a short handle. Straight handle scoops can be used in dry sand but using them in wet sand requires much more swing power from the detectorist arm since the handle mounting angle is 90 degrees to the basket. 90 degree handle scoops do not have the same leverage from the detectorist swing as does a 20 degree handle scoop. The scoop with the extension does not have a kick plate on the basket. This scoop should not be used by applying pressure from one's foot to force the basket into the sand as doing so will damage or crush the basket in a short period of time.

In Fig. C *is the ideal sand scoop for target recovery in beach dry sand. The handle is welded to the scoop basket at 20 degrees and is eight to fourteen inches long; the basket diameter is five inches with 1/2 inch holes in the screen mesh. This scoop will provide the best swinging leverage in soft sand and can also be used in wet sand by drawing the scoop across the sand toward the detectorist. The ideal material for this scoop would be galvanized steel for the handle, basket and cutting lip. Using galvanized steel will provide for light weight, a smooth travel though the sand and be somewhat resistant to corrosion.*



Water Scoops. The two main materials used in water scoop construction are stainless steel and aluminum. There are water scoops made of galvanized steel but the durability of the scoop may not be as good or long lasting. The typical scoop (bucket) size is five or six inches with either 1/2 inch or 5/8 inch holes.

The hole size you choose should be determined by the type of lake or ocean bottom you will be detecting and recovering targets. I would suggest using 1/2 inch holes since smaller objects will not as easily pass though the 1/2 holes in the scoop.

Tip: Cover the inside bottom of the scoop with 1/4 inch mesh galvanized screen and secure it with small tie wraps, both screen and tie wraps can be purchased from your local hardware store. This will keep the small earrings and other small items inside the scoop rather than flow though the larger 1/2 inch holes back into the water as you shake the scoop.

All scoops made from stainless steel or aluminum can be forced into the beach bottom or sand by applying pressure to the back of the bucket with your foot. These scoops have very rugged construction.

Aluminum scoops will weight from three 1/2 to four lbs, while a stainless steel scoop will weight from six to six 1/2 lbs. The price for aluminum scoops will range from $120 to $150 while the price for a stainless steel scoop will range from $145 to $190.

In Fig. D is a 48 inch length handle aluminum water scoop. The handle is welded to the scoop bucket (basket) at an angle. The ideal angle of the handle to the scoop is 20 to 35 degrees. You will also note that there is a support piece welded between the handle and the bucket. This particular scoop bracket is square. A better

choice would be a round piece of aluminum tubing. The reason for a round support piece of tubing is that this is the area you will grip to shake the scoop for sand removal. A round metal support is much easier on the hand while gripping and shaking the scoop.

In Fig. E you see an aluminum scoop with a travel handle. The handle comes apart in the middle for easy transportation in your car or on an airplane. A travel water scoop can be obtained in either stainless steel or aluminum construction materials.

In Fig. F *you will see a stainless steel scoop. The ideal stainless steel scoop will have a 48 inch handle welded at 20 to 35 degrees to the bucket with a round support piece from the handle to the bucket. The bucket should be five inches in diameter, nine inches deep and the hole size should be 1/2 inch in diameter. This scoop should also have a travel handle.*

Fig. H

Sand and Water Scoops Summary

Attributes	Sand Scoop	Water Scoop
Basket Size	4 to 5 Inches	NA
Bucket Size	5 Inches	5 to 6 Inches
Handle Length	8 to 14 Inch or Longer	42 to 48 Inches
Handle Angle	90 or 20 Degree	20 to 35 Degree
Hole Size		
Round Hole Size	1/2 to 5/8 Inches	1/2 to 5/8 Inches
Screen Square Hole Size	1/2 Inch	NA
Weight		
Aluminum	1 to 1.5 lbs	3 to 3.5 lbs
Stainless Steel	.75 lbs to 2.5 lb	6 to 6.5 lbs
Galvanized	.75lbs to 2.5 lbs	NA
Plastic	.5 lbs	NA
Scoop Depth	7 Inches	9 to 12 Inches
Price		
Aluminum	$40 t0 $45	$120 to $145
Stainless Steel	NA	$145 to $190
Galvanized	$35 to $40	NA
Plastic	$12 to 20	NA
Scoop Recommendation		
Material	Galvanized	Stainless Steel
Basket or Bucket Size	Five Inch	Five Inch
Handle Length	8 to 14 Inches	Travel 48 Inches
Basket Depth	Seven Inches	NA
Bucket Depth	NA	Nine Inches
Basket or Bucket Hole Size	1/2 inch Diameter	1/2 inch Diameter
Price	$35	$155
Metal Detecting Hobby Talk	http://www.mdhtalk.org	

Fig. G has two images. One image has a grip welded to the handle. The grip is there to made it much easier to lift the scoop once it is full of material from the beach bottom of a lake or ocean. This type of grip can be purchased and added to any aluminum or stainless steel handled scoop. It does not need to be welded to the handle.

The other image is of a stainless steel scoop bucket. Note the bill on the scoop bucket is long. This long scoop bill helps in penetrating deeper into the beach bottom and adds to the amount of sand that can be removed with each bucket dig.

In Summary. Selecting the right scoop for beach and water target recovery is very important. You must be prepared to spend money, since a cheap scoop will probably not last long or produce the desired target recovery result.

In Fig. H is a summary table of sand and water scoop attributes.

The most important attributes are handle angle, basket or bucket size and material used to construct the scoop.

There is a Scoop Recommendation list of attributes for both sand and water scoops at the end on Fig. H. Take some time to review the complete table before purchasing your next scoop.

In conclusion you will probably be purchasing both a sand scoop and a water scoop. These scoops can usually be used on either freshwater or saltwater beaches.

The major reason for stainless steel water scoop is the durability of the stainless steel in saltwater and hardness of the stainless steel for digging in freshwater rock bottom beaches.