

TITLE OF INVENTION: NET TRAP FOR CAPTURING FLYING ANIMALS

FIELD

[0001] The present invention relates to a net trap for capturing flying animals. While the present invention will be described with reference to its application in the capture of birds from a roost tree, it is to be appreciated that the invention is not restricted to this application and could also be used to capture other flying animals.

BACKGROUND

[0002] The following discussion of the background to the invention is intended to facilitate an understanding of the present invention only. It should be appreciated that the discussion is not an acknowledgement or admission that any of the material referred to was published, known or part of the common general knowledge of the person skilled in the art in any jurisdiction as at the priority date of the invention.

[0003] Growing populations of birds can become a nuisance to residents living near the vicinity of trees or fields where the birds may congregate. Pest controllers can therefore be engaged to reduce the populations of such bird flocks near these residents. While pest controllers can exterminate the birds, this is often undesirable or not allowed under local laws. Therefore, traps have been used to capture and relocate the bird population.

[0004] The Applicant has developed an umbrella trap for use in trapping birds roosting within a tree. This umbrella trap is described in the Applicant's Singapore patent application no. 10201913025U. While this trap has been successful in trapping birds within a roost tree, the umbrella trap is typically suspended from a crane, the rent of which can involve a significant cost.

[0005] It would therefore be advantageous to be able to provide a net trap suitable for, but not limited to the trapping of birds or other flying animals from a roost tree

which is preferably easier and less costly to deploy, and which is preferably easily scalable to larger trees as required.

SUMMARY

[0006] According to an aspect of the present disclosure, there is provided a net trap for capturing flying animals comprising:

at least two telescopic masts; and

at least one net extending between each of the masts;

wherein, when the net trap is in used, each of the masts are positioned adjacent a roost tree of the flying animals and are extendible in a generally upward direction to thereby allow unfurling of the net(s) to a position adjacent the roost tree.

[0007] In some embodiments, the masts are extendible in a vertical direction.

[0008] In some embodiments, the net(s) has a width sufficient to provide a net wall adjacent at least a top region of the roost tree when unfurled.

[0009] In some embodiments, the width of the net(s) covers at least a top 30% of the roost tree.

[0010] In some embodiments, the width of the net(s) includes an additional buffer width.

[0011] In some embodiments, the buffer width is about 1 metre.

[0012] In some embodiments, the net trap comprises two said masts, the net(s) extending between the two masts.

[0013] In some embodiments, the net trap comprises four said masts, the net(s) extending between the four masts in a generally V-shaped configuration.

[0014] In some embodiments, the net trap comprises six said masts, the net(s) extending between the six masts in a generally U-shaped configuration.

[0015] In some embodiments, the net is in the form of a mist net.

[0016] Other aspects and features will become apparent to those of ordinary skill in the art upon review of the following description of specific embodiments in conjunction with the accompanying figures.

BRIEF DESCRIPTION OF THE DRAWINGS

[0017] In the figures, which illustrate, by way of example only, embodiments of the present invention,

[0018] [Figure 1] is a schematic front view of a net trap according to the present disclosed before deployment;

[0019] [Figure 2] is a schematic front view of one embodiment of a net trap of [figure 1] after deployment;

[0020] [Figure 3] is a schematic side view of a net trap of [figure 1] before deployment;

[0021] [Figure 4] is a schematic side view of a net trap of [figure 2] after deployment;

[0022] [Figure 5] is a schematic top view of the net of [figure 2] after deployment;

[0023] [Figure 6] is a schematic top view of another embodiment of a net trap of the present disclosure having four masts after deployment; and

[0024] [Figure 7] is a schematic top view of a further embodiment of a net trap of the present disclosure having six masts after deployment.

[0025] Other arrangements of the invention are possible and, consequently, the accompanying drawings are not to be understood as superseding the generality of the preceding description of the invention.

DETAILED DESCRIPTION

[0026] Throughout this document, unless otherwise indicated to the contrary, the terms “comprising”, “consisting of”, “having” and the like, are to be construed as non-exhaustive, or in other words, as meaning “including, but not limited to”.

[0027] Furthermore, throughout the specification, unless the context requires otherwise, the word “include” or variations such as “includes” or “including” will be understood to imply the inclusion of a stated integer or group of integers but not the exclusion of any other integer or group of integers.

[0028] Example embodiments of the present invention will now be described with reference to the accompanying drawings. The terminology used herein is for the purpose of describing particular embodiments only and is not intended to limit the scope of the present invention. Other definitions for selected terms used herein may be found within the detailed description of the invention and apply throughout the description. Additionally, unless defined otherwise, all technical and scientific terms used herein have the same meanings as commonly understood by one of ordinary skill in the art to which this invention belongs. Where possible, the same reference numerals are used throughout the figures for clarity and consistency.

[0029] Birds such as mynas and crows typically return to a tree to roost in the evening. In the case of Singapore for example, it is possible for a single tree to have several hundred birds roosting within that tree for the night. These birds also typically roost in the top regions of the tree. It has been observed that the birds typically occupy around the top 30% of the tree while roosting. The net trap according to the present disclosure seeks to trap birds that are roosting in trees in the above-described manner.

[0030] [Figs. 1 to 5] show a net trap 2 according to one embodiment of the present disclosure. The net trap 2 is used to trap birds roosting within a target root tree 1. The net traps comprise two telescopic masts 5, with a net 3 extending between and respectively connected to each mast 5. The net 3 may be in the form of a mist net suitable for entangling birds being trapped. The use of other types of nets are also

envisaged depending on the type and size of animal being captured. It is also envisaged that more than one net 3 be provided between each pair of masts 5.

[0031] Each telescopic mast 5 is firstly set up adjacent one side of the roost tree 1 as shown in [fig. 1], with each mast 5 held in a generally vertical position relative to the ground supporting the mast 5 by structural supports 7 as shown in [fig. 3]. It is also envisaged that the masts 5 be held at an angle to the supporting ground depending on site conditions and other factors associated with the location of the roost tree. The masts 5 are positioned in a spaced apart configuration with the net 3 supported by and extending between the masts 5 as shown in [fig. 5]. The net 3 is initially held in an unfurled state between the masts 5 prior to deployment of the net trap 2 as shown in [fig. 1]. The masts 5 are extended upwardly at least a day before trapping to allow the birds to habituate to them.

[0032] The birds' activity will eventually normalise in the presence of the masts 5. At this point the nets 3 are ready to be raised. After last vocalisation, when the birds roosting within the tree 1 have settled within the tree and are silent, the net trap 2 can be moved to a fully deployed position as shown in [fig. 2, 4 and 5]. Each mast 5 may include electrical actuation means to allow the masts 5 to be extended or retracted. It is also envisaged that the masts 5 be manually actuated during deployment of the net trap 2. The net 3 is raised manually using a pulley system (not shown) on each mast 5, requiring personnel to handle the raising on each pole simultaneously. After deployment of the net trap 2, the unfurled net 3 is held in a position adjacent to the top region of the tree 1 where the birds are most likely to be roosting. The net 3 will be unfurled and stretched between the masts 5 to form a net wall located adjacent to at least the top region of the tree 1 once the net trap 2 is fully deployed. As previously noted, the birds will typically roost within the top 30% of the tree 1, and the deployed net 3 may therefore have a width W extending at least 30% of the tree height as shown in [fig. 2]. It may also be advantageous for the net width to be greater than 30% of the tree height, and the mist net width W may therefore include an additional buffer width. That buffer width may for example be, but is not limited to, around 1 metre.

[0033] Following deployment of the net trap 2, dispersal tools such as a laser or sound system is used to scare the roosting birds out of the tree in a direction towards the net trap 2. The direction of flight of the birds can be controlled because birds instinctively fly in a direction D horizontally out of the tree when scared (see [fig. 4]) and can therefore be directed towards the net 3 where the birds will entangle themselves. The masts 5 and net 3 may be of suitable strength to withstand the sudden force of the birds flying into and becoming entangled within the net 3. The nets 3 may then be manually lowered using the pulley system so that the birds can be retrieved by hand from the net 3.

[0034] It is also envisaged that more than two telescopic masts 5 be used depending on the size of the roosting tree 1, and the number of birds expected to be roosting within that tree 1. Therefore, while a smaller tree may only require two masts 5, with at least one net 3 stretched between them, more than two masts 5 could be used for larger trees 1. [Fig. 6] shows another embodiment of the net trap 2 according to the present disclosure where four telescopic masts 5 can be used. The masts 5 can be positioned around the tree 1 to support the one or more nets 3 in a V-shaped configuration around one side of the tree 1. Alternatively, in a further embodiment of the net trap 1 according to the present disclosure, six telescopic masts 5 could be positioned around the tree 1 to support one or more nets 3 in a U-shaped configuration as shown in [fig. 7]. These embodiments can assist in maximising the capture rate of birds in larger trees 1.

[0035] The net trap 1 according to the present disclosure can be readily set up and scalable for roosting trees of different sizes. Furthermore, no crane is required in the deployment of the net trap 1.

[0036] It should be appreciated by the person skilled in the art that the above invention is not limited to the embodiment described. It is to be appreciated that modifications and improvements may be made without departing from the scope of the present invention.

[0037] It should be further appreciated by the person skilled in the art that one or more of the above modifications or improvements, not being mutually exclusive, may be further combined to form yet further embodiments of the present invention.

CLAIMS

[Claim 1] A net trap for capturing flying animals comprising:

at least two telescopic masts; and

at least one net extending between each of the masts;

wherein, when the net trap is in used, each of the masts are positioned adjacent a roost tree of the flying animals and are extendible in a generally upward direction to thereby allow unfurling of the net(s) to a position adjacent the roost tree.

[Claim 2] A net trap according to claim 1, wherein the masts are extendible in a vertical direction.

[Claim 3] A net trap according to claim 1 or 2, wherein the net(s) has a width sufficient to provide a net wall adjacent at least a top region of the roost tree when unfurled.

[Claim 4] A net trap according to claim 3, wherein the width of the net(s) covers at least a top 30% of the roost tree.

[Claim 5] A net trap according to claim 4, wherein the width of the net(s) includes an additional buffer width.

[Claim 6] A net trap according to claim 5, wherein the buffer width is about 1 metre.

[Claim 7] A net trap according to any one of claims 1 to 5, comprising two said masts, the net(s) extending between the two masts.

[Claim 8] A net trap according to any one of claims 1 to 5, comprising four said masts, the net(s) extending between the four masts in a generally V-shaped configuration.

[Claim 9] A net trap according to any one of claims 1 to 5, comprising six said masts, the net(s) extending between the six masts in a generally U-shaped configuration.

[Claim 10] A net trap according to any one of the preceding claims, wherein the net is in the form of a mist net.