CLAIMS

What is claimed is:

1. An insect trap comprising:

a trap portion including an enclosure having an adhesive surface and a first opening, wherein the adhesive surface is at least partially contained within the enclosure and is configured to adhere to an insect; and

a base portion including a lighting element and a mounting portion, wherein the lighting element is configured to provide light to the trap portion, and wherein the mounting portion is configured to communicate with and receive power from a power source;

wherein the trap portion is configured to removably engage with the base portion and receive light from the base portion when engaged therewith.

2. The trap of claim 1, wherein the first opening is configured to allow an insect to enter into the enclosure.
3. The trap of claim 1, wherein the enclosure includes a second opening, the second opening configured to allow light to emit from the enclosure.
4. The trap of claim 1, wherein, within the base portion, the light is not manipulated.
5. The trap of claim 1, wherein the enclosure includes a third opening, the third opening configured to allow light to be received from base portion into the enclosure.
6. The trap of claim 1, wherein the enclosure is configured to distribute the light in a predetermined pattern.
7. The trap of claim 6, wherein the enclosure comprises:

a front housing portion having a first internal surface; and

a rear housing portion having a second internal surface,

wherein the front housing portion and rear housing portion are matingly engaged with each other to form the enclosure; and

wherein at least one of the first or second internal surfaces is configured to manipulate light.

8. The trap of claim 7, wherein at least one of the first or second internal surfaces comprise an adhesive surface.
9. The trap of claim 8, wherein the rear housing portion has a concave surface, the concave surface configured to reflect light evenly within the enclosure.

10. The trap of claim 9, wherein light is transmitted through the adhesive surface, illuminating the adhesive surface to attract an insect to the adhesive surface.

11. The trap of claim 6, wherein the enclosure comprises:

a front housing portion having a first internal surface;

a rear housing portion having a second internal surface; and

a divider portion disposed at least partially between the front housing portion and rear housing portion,

wherein the front housing portion and rear housing portion are matingly engaged with each other to form the enclosure; and

wherein the divider portion divides the enclosure into a front enclosure portion and a rear enclosure portion.

12. The trap of claim 11, wherein the divider portion includes a rear surface comprising translucent material and includes a front surface comprising an adhesive surface.

13. The trap of claim 11, wherein the second internal surface of the rear housing portion comprises a concave surface, the concave surface configured to reflect light onto the rear surface of the divider portion.

14. The trap of claim 12, wherein light is transmitted through the adhesive surface, illuminating the adhesive surface to attract an insect to the adhesive surface.

15. The trap of claim 12, wherein the rear surface of the divider portion is configured to receive the light from the second internal surface of the rear housing portion or directly from the lighting element.

16. The trap of claim 15, wherein the divider portion is configured to receive light at an oblique angle and spread across the divider portion.

17. The trap of claim 11, wherein the divider portion is configured to manipulate light.

18. The trap of claim 15, wherein the divider portion comprises a planar or contoured shape, wherein the shape of the divider portion is configured to optimize light distribution.

19. The trap of claim 1, wherein the base portion comprises a protrusion and wherein the trap portion comprises a recess for receiving the protrusion, wherein when the protrusion is received by the trap portion, the base portion and trap portion are engaged.

20. The trap of claim 1, wherein the trap portion comprises a protrusion and wherein the base portion comprises a recess for receiving the protrusion, wherein when the protrusion is received by the base portion, the base portion and trap portion are engaged.
21. The trap of claim 1, wherein the trap portion comprises a polymeric, fibrous, or carbon-based material.
22. The trap of claim 1, wherein the mounting portion comprises an electrical plug having rigid conductors protruding substantially perpendicularly and directly from the rear surface of the mounting portion, wherein the conductors are insertable into an electrical power outlet.
23. The trap of claim 1, wherein the power source comprises an electrical power outlet or a battery.
24. The trap of claim 1, wherein the lighting element comprises a light emitting diode (LED).
25. The trap of claim 24, wherein the lighting element comprises an ultraviolet (UV) LED and a blue LED.
26. The trap of claim 1, wherein the base portion comprises an energy stabilizer configured to provide a constant voltage to the lighting element.
27. The trap of claim 26, wherein the energy stabilizer comprises full rectifier circuit.
28. The trap of claim 1, wherein the base portion comprises an opening, the opening configured to allow light to emit from the base portion to the trap portion.
29. The trap of claim 28, wherein the opening comprises a transparent or translucent window.
30. The trap of claim 28, wherein the opening is proximate to the lighting element.
31. The trap of claim 1, wherein the trap portion comprises an insect attractant.
32. The trap of claim 31, wherein the insect attractant is selected from the group consisting of: sorbitol, coleopteran attractants, dipteran attractants, homopteran attractants, lepidopteran, straight chain lepidopteran pheromones, eugenol, methyl eugenol, and siglure.

33. The trap of claim 32, wherein the coleopteran attractants comprise brevicomin, dominicalure, frontalin, grandlure, ipsdienol, ipsenol, japonilure, lineatin, megatomoic acid, multistriatin, oryctalure, sulcatol, and trunc-call.
34. The trap of claim 32, wherein the dipteran attractants comprise ceralure, cue-lure, latilure, medlure, moguchun, muscalure, and trimedlure.
35. The trap of claim 32, wherein the homopteran attractants comprise rescalure.
36. The trap of claim 32, wherein the lepidopteran attractants comprise disparlure.
37. The trap of claim 32, wherein the straight chain lepidopteran pheromones comprise codlelure, gossyplure, hexalure, litlure, looplure, orfralure, and ostramone.
38. The trap of claim 31, wherein the insect attractant is integral to the enclosure.
39. The trap of claim 1, wherein the base portion comprises a transmitter.
40. The trap of claim 39, wherein the transmitter comprises a piezoelectric speaker configured to emit an insect-attracting sound.
41. The trap of claim 40, wherein the insect-attracting sound comprises frequencies in the range of approximately 0.2Hz to 240KHz.
42. The trap of claim 1, wherein the base comprises a switch, the switch configured to allow a user to control a property of the trap.
43. The trap of claim 42, wherein the property is selected from the group consisting of: power, light intensity, light wavelength or frequency, light flickering, light patterns, and combinations thereof.
44. The trap of claim 42, wherein the switch comprises a mechanical switch, an optical switch, an electronic switch, an electromechanical switch, or a Hall effect sensor.
45. The trap of claim 1, wherein the enclosure comprises a reflective surface.
46. The trap of claim 45, wherein the adhesive surface is proximate to the reflective surface.
47. The trap of claim 1, wherein the base portion comprises a circuit configured to a varying voltage to the lighting element, wherein the lighting element provides intermittent light to the trap portion.
48. The trap of claim 1, wherein the enclosure comprises an outer surface, the outer surface at least partially surrounded by sleeve that is configured to reduce the amount of light emitted by the enclosure.

49. The trap of claim 11, wherein the at least one of the first or second internal surfaces comprises a textured surface, the textured surface configured to increase the surface area of the enclosure.
50. The trap of claim 49, wherein the textured surfaces comprises ribs extending at least a portion of the length of the first or second internal surfaces.
51. The trap of claim 13, wherein the at least one of the first or second internal surfaces comprises a textured surface, the textured surface configured to increase the surface area of the enclosure.
52. The trap of claim 51, wherein the textured surfaces comprises ribs extending at least a portion of the length of the first or second internal surfaces.
53. The trap of claim 11, further comprising:

a light conducting body located proximate to the second internal surface of the rear housing portion, the light conducting body having a front surface and a rear surface and the light conducting body configured to receive light from the base portion and distribute the light in a predetermined pattern in the enclosure.

54. The trap of claim 53, wherein the front surface of the light conducting body further comprises an adhesive material.
55. The trap of claim 53, wherein the rear surface of the light reflecting body is configured to reduce the amount of light from being emitted in a predetermined direction.
56. The trap of claim 53, wherein the light conducting body is tapered, having a thicker depth at a portion proximate to the base portion and a thinner depth at an opposite end.
57. The trap of claim 53, wherein the rear surface of the light conducting body is configured to reflect light into the light conducting body.
58. The trap of claim 53, wherein light is reflected multiple times within the light conducting body before being emitted into the enclosure.
59. The trap of claim 53, wherein the rear surface comprises a rear cover or a matte layer.
60. The trap of claim 1, wherein the base portion further comprises an optical enhancer, the optical enhancer configured to direct the light into the trap portion in a predetermined pattern.
61. The trap of claim 60, wherein the optical enhancer comprises a lens.

62. The trap of claim 7, wherein the enclosure comprises an inner sleeve and the base portion comprises an outer sleeve, the inner sleeve configured to align with the outer sleeve.
63. The trap of claim 62, wherein the outer sleeve comprises a face plate having an opening.
64. The trap of claim 62, wherein the face plate opening corresponds to an enclosure opening, the openings providing an alignment means.
65. The trap of claim 62, wherein the inner sleeve is configured to be dropped into the outer sleeve.
66. The trap of claim 65, wherein the inner sleeve comprises a tab for holding on to the inner sleeve.
67. The trap of claim 1, wherein the base portion comprises a docking switch, the docking switch configured to activate the lighting element when the trap portion is correctly engaged with the base portion.
68. The trap of claim 67, wherein the trap portion comprises a docking switch activator, the docking switch activator configured to activate the docking switch when the trap portion is correctly engaged with the base portion.
69. The trap of claim 67, wherein the docking switch comprises a mechanical switch, an optical switch, an electronic switch, an electromechanical switch, or a Hall effect sensor.
70. An insect trap comprising:

a trap portion including:

an enclosure having an adhesive surface and a first opening, wherein the adhesive surface is at least partially contained within the enclosure and is configured to adhere to an insect, and

a lighting element at least partially contained within the enclosure, wherein the lighting element is configured to provide light within the enclosure and wherein the lighting element is configured to communicate with and receive power from a power source; and

a base portion configured to removably engage the trap portion and provide access to the power source.

71. The insect trap of claim 70, wherein the lighting element includes a plurality of electrical trap contacts and wherein the base portion includes a plurality of electrical base contacts, the trap contacts configured to communicate with the base contacts to provide power to the lighting element.

72. The insect trap of claim 71, wherein the base contacts are in communication with the power source.

73. The insect trap of claim 70, wherein the lighting element comprises a light emitting diode (LED).

74. A removable insect trap cartridge comprising:

an enclosure defining the cartridge, the enclosure having an adhesive surface and a first opening,

wherein the adhesive surface is at least partially contained within the enclosure and is configured to adhere to an insect,

wherein the first opening is configured to allow an insect to enter the enclosure, and

wherein the enclosure is configured to provide light in a predetermined pattern within the enclosure.

75. The cartridge of claim 74, wherein the enclosure further comprises a lighting element.

76. The cartridge of claim 75, wherein the lighting element comprises a light emitting diode (LED).

77. The cartridge of claim 76, wherein the lighting element comprises an ultraviolet (UV) LED and a blue LED.

78. The cartridge of claim 74, wherein the enclosure comprises:

a front housing portion having a first internal surface; and

a rear housing portion having a second internal surface,

wherein the front housing portion and rear housing portion are matingly engaged with each other to form the enclosure; and

wherein at least one of the first or second internal surfaces is configured to manipulate light.

79. The cartridge of claim 78, wherein at least one of the first or second internal surfaces comprise an adhesive surface.

80. The cartridge of claim 74, wherein the rear housing portion has a concave surface, the concave surface configured to reflect light evenly within the enclosure.

81. The cartridge of claim 74, wherein light is transmitted through the adhesive surface, illuminating the adhesive surface to attract an insect to the adhesive surface.

82. The cartridge of claim 74, wherein the enclosure comprises:

a front housing portion having a first internal surface;

a rear housing portion having a second internal surface; and

a divider portion disposed at least partially between the front housing portion and rear housing portion,

wherein the front housing portion and rear housing portion are matingly engaged with each other to form the enclosure; and

wherein the divider portion divides the enclosure into a front enclosure portion and a rear enclosure portion.

83. The cartridge of claim 82, wherein the divider portion includes a rear surface comprising translucent material and includes a front surface comprising an adhesive surface.

84. The cartridge of claim 83, wherein the second internal surface of the rear housing portion comprises a concave surface, the concave surface configured to reflect light onto the rear surface of the divider portion.

85. The cartridge of claim 84, wherein light is transmitted through the adhesive surface, illuminating the adhesive surface to attract an insect to the adhesive surface.

86. The cartridge of claim 84, wherein the rear surface of the divider portion is configured to receive the light from the second internal surface of the rear housing portion or directly from a lighting element.

87. The cartridge of claim 74, wherein the enclosure comprises a bottom surface, the bottom surface configured to be removably received in a pluggable base.

88. The cartridge of claim 74, wherein the enclosure comprises biodegradable materials.

89. The cartridge of claim 74, wherein the enclosure comprises an outer surface, the outer surface including a decorative element.

90. The cartridge of claim 89, wherein the decorative element comprises a shape selected from the group consisting of: a flower, a plant, a shell, a company logo, a sports team

logo, a football, a basketball, a soccer ball, a hockey puck, a football helmet or a hockey stick.

91. The cartridge of claim 74, wherein the trap portion comprises an insect attractant.

92. The cartridge of claim 91, wherein the insect attractant is selected from the group consisting of: sorbitol, coleopteran attractants, dipteran attractants, homopteran attractants, lepidopteran, straight chain lepidopteran pheromones, eugenol, methyl eugenol, and siglure.

93. The cartridge of claim 91, wherein the insect attractant is detectable by an insect at a distance of approximately 2 meters from the cartridge.

94. The cartridge of claim 74, wherein the enclosure comprises a textured surface, the textured surface configured to increase the surface area of the enclosure.

95. The cartridge of claim 74, wherein the textured surface comprises ribs extending at least a portion of the length of the enclosure.

96. The cartridge of claim 74, further comprising:
a light conducting body located within the enclosure, the light conducting body configured to receive light and distribute the light in a predetermined pattern in the enclosure.

97. The cartridge of claim 74, wherein the enclosure comprises an inner sleeve that is configured to be received into and aligned with an outer sleeve.

98. The cartridge of claim 97, wherein the outer sleeve comprises a face plate having an opening.

99. The cartridge of claim 98, wherein the face plate opening corresponds to an enclosure opening, the openings providing an alignment means.

100. The cartridge of claim 97, wherein the inner sleeve comprises a tab for holding on to the inner sleeve.

101. The cartridge of claim 74, wherein the cartridge comprises a docking switch activator, the docking switch activator configured to activate a docking switch when the cartridge is correctly engaged with a base portion.

102. The cartridge of claim 101, wherein the docking switch activator comprises a mechanical switch, an optical switch, an electronic switch, an electromechanical switch, or a Hall effect sensor.

103. A method comprising:

providing a base portion of an insect trap;

providing a first trap portion of an insect trap, wherein the first trap portion comprises an opening;

mounting the first trap portion to the base portion;

coupling the base portion to a power source to provide power to a lighting element, wherein the lighting element is within the base portion or first trap portion and wherein the lighting element is configured to attract an insect into the first trap portion; and

receiving an insect into the first trap portion through the opening.

104. The method of claim 103, further comprising:

separating the first trap portion from the base portion; and

disposing of the first trap portion,

wherein the insect remains in the disposed first trap portion.

105. The method of claim 104, wherein the first trap portion is disposed without human contact with the insect in the first trap portion.

106. The method of claim 103, wherein the first trap portion comprises an adhesive surface and wherein the insect adheres to the adhesive surface.

107. The method of claim 103, wherein the base portion comprises a docking switch, wherein the docking switch is configured to activate the lighting element when the first trap portion is correctly mounted to the base portion.

108. The method of claim 104, wherein upon separating the first trap portion from the base portion, the lighting element is powered off.

109. The method of claim 104, wherein upon separating the first trap portion from the base portion, the lighting element is at least partially shielded from emitting light.

110. The method of claim 104, further comprising:

providing a second trap portion of an insect trap, wherein the second trap portion comprises an opening; and

mounting the second trap portion to the base portion.

111. The method of claim 110, wherein the first insect trap and second insect trap have different configurations.

112. A docking apparatus comprising:

a docking structure configured to activate in response to a docking activator, the docking activator located on a separate piece configured to engage the docking structure,

wherein the docking structure is in communication with a power source and is configured to control power to a lighting element.

113. The apparatus of claim 112, wherein the docking activator comprises a surface, a protrusion, a tab or a magnet.

114. The apparatus of claim 112, wherein the docking structure is configured to close when the docking activator engages with it and is configured to open when the docking activator disengages from it.

115. The apparatus of claim 112, wherein the docking structure is configured to activate in response to pressure from the docking activator.

116. The apparatus of claim 112, wherein the docking structure is configured to activate in response to displacement from the docking activator.

117. A removable insect trap cartridge comprising:

an enclosure defining the cartridge, the enclosure having an adhesive surface and a first opening,

wherein the adhesive surface is at least partially contained within the enclosure and is configured to adhere to an insect, and

a docking activator, the docking activator configured to engage a docking structure in a mounting portion,

CLAIMS

1. An insect trap portion (114), comprising:

a front enclosure (146);

a rear enclosure (148);

a divider (134) comprising an adhesive (136), wherein the divider (134) separates the insect trap portion (114) into the front enclosure (146) and the rear enclosure (148); and

a first opening (120) through which an insect may fly or crawl into the front enclosure (146).

2. The insect trap portion (114) according to claim 1, wherein the adhesive is transparent or translucent.

3. The insect trap portion (114) according to any of the preceding claims, further comprising a second opening (144) or window through which light from the lighting element (124) is transmitted into the rear enclosure (148) when the insect trap portion (114) engages the base portion (112).

4. The insect trap portion (114) according to any of the preceding claims, wherein the divider (134) is substantially planar.

5. The insect trap portion (114) according to any of the preceding claims, wherein front enclosure (146) is enclosed by a front housing (118) and the rear enclosure (148) is enclosed by a rear housing (140), the front housing (118) and the rear housing (140) being joined together to form the enclosure.

6. The insect trap portion (114) according to claim 5, wherein the first opening is formed in the front housing (118) and the second opening (144) or window is formed in a bottom surface (166) of the rear housing (118).

7. The insect trap portion (114) according to claim 5, wherein the front housing (118) and the rear housing (140) are joined together at their perimeters by one of an adhesive, ultrasonic welding or RF sealing.

8. The insect trap portion (114) according to any of the preceding claims, further comprising an insect attractant.

9. The insect trap portion (114) according to claim 8, wherein the divider comprises the insect attractant.

10. The insect trap portion (114) according to claim 8, wherein the insect attractant is embedded in a separate piece mounted on an inside surface of the front housing (118).

11. The insect trap portion (114) according to any of claims 5 to 10, wherein the front housing (118) and the rear housing (140) are formed by injection molding or thermoforming.

12. The insect trap portion (114) according to any of the preceding claims, wherein the divider (134) further comprises a transparent or translucent material onto which the adhesive (136) is coated.

13. The insect trap portion (114) according to any of the preceding claims, wherein greater than 60% of the light from a lighting element (124) in a base portion (112) is transmitted through the divider (134).

14. The insect trap portion (114) according to any of the preceding claims, wherein the insect trap portion (114) has a width from 20 mm to 200 mm and a height from 20 mm to 200 mm and a depth from 5 mm to 80 mm, preferably a width from 20 mm to 130 mm and a height from 20 mm to 130 mm and a depth from 5 mm to 50 mm.

15. An insect trap (110) comprising a base portion (112) and an insect trap portion (114) according to any of the preceding claims, wherein the base portion (112) comprises the lighting element (124) and electrically conductive prongs (122) insertable into an electric socket.

16. The insect trap (110) according to claim 15, wherein the base portion (112) further comprises a transparent or translucent window (128) through which light from the lighting element (124) is transmitted.

17. The insect trap (110) according to any of claims 15 and 16, wherein the lighting element comprises a first LED that emits blue light and a second LED that emits ultraviolet light.

18. The insect trap (110) according to any of claims 15 to 17, wherein the base portion (112) further comprises a switch (116).

19. The insect trap (110) according to any of claims 15 to 18, wherein the base portion (112) further comprises a slot (130) in a top surface (126) of the base portion (112)

that engages the insect trap portion (114) when the insect trap portion (114) is mounted on the base portion (112).

20. The insect trap (110) according to claim 19, wherein the base portion (112) further comprises protrusions (132) on the top surface (126) that engage the insect trap portion (114) when the insect trap portion (114) is mounted on the base portion (112).

21. A method of making an insect trap portion (114) according to claim 1, comprising:

forming a front housing (118) comprising a first opening (120) through which an insect may fly or crawl;

forming a rear housing (140);

forming a divider (134) comprising an adhesive (136); and

joining together the front housing (118), the rear housing (140) and the divider (134).

22. An insect trap (610), comprising:

a base portion (612) comprising a lighting element (624), electrically conductive prongs (622) and an upstanding rear housing (626); and

an insect trap portion (614) removably mounted to the base portion (612), the insect trap portion (614) comprising an adhesive (640) and an opening (620) through which an insect may fly or crawl into the insect trap portion (614),

wherein light emitted from the lighting element (624) is transmitted through the adhesive (640).

23. The insect trap portion (614) according to claim 22, wherein the insect trap portion (614) has a width from 20 mm to 200 mm and a height from 20 mm to 200 mm and a depth from 5 mm to 80 mm, preferably a width from 20 mm to 130 mm and a height from 20 mm to 130 mm and a depth from 5 mm to 50 mm.

24. The insect trap (610) according to any of claims 22 to 23, wherein the lighting element (624) comprises a first LED that emits blue light and a second LED that emits ultraviolet light.

25. The insect trap (610) according to any of claims 22 to 24, wherein the base portion (112) further comprises a transparent or translucent window (630) attached at its perimeter to the rear housing (626) to form a rear enclosure (646).

26. The insect trap (610) according to any of claims 22 to 25, wherein the insect trap portion (614) further comprises a front housing (618) and a back plate (638) formed from a transparent or translucent material.

27. The insect trap (610) according to claim 26, wherein the back plate (638) is attached to the front housing (618) at its perimeter to form a front enclosure (644).

28. The insect trap (610) according to claim 26, wherein the adhesive (640) is coated on the back plate (638).

29. The insect trap (610) according to any of claims 26 to 28, wherein the back plate is substantially planar.

30. The insect trap (610) according to any of claims 26 to 29, wherein greater than 60% of the light from the lighting element (624) is transmitted through the back plate (638) and the adhesive (640).

31. The insect trap (610) according to any of claims 26 to 30, wherein the front housing (618) is formed from injection molding or thermoforming.

32. The insect trap (610) according to any of claims 22 to 31, wherein the rear housing (626) is formed from injection molding or thermoforming.

33. The insect trap (610) according to any of claims 22 to 32, wherein the base portion (612) further comprises an opening (632) through which light from the lighting element (624) passes.

34. The insect trap portion (114) according to any of claims 22 to 33, further comprising an insect attractant.

35. A method of using an insect trap (610) according to any of claims 22 to 34, comprising:

inserting the insect trap portion (614) into the base portion (612);

emitting light from the lighting element (624) of the base portion (612);

transmitting the light through the adhesive (640);

trapping insects in the adhesive (640);

removing the insect trap portion (614) from the base portion (612);

discarding the entire insect trap portion (614) without touching the trapped insects or adhesive (640); and

inserting a new insect trap portion (614) into the base portion (612).

36. An insect trap (810), comprising:

an insect trap portion (814) and a base portion (812), the base portion (812) comprising a lighting element (826) and a switch (820), and the insect trap portion (814) comprising:

an enclosure comprising an adhesive (136) and a first opening (120) through which an insect may fly or crawl into the insect trap portion 814); and

a downwardly protruding tab (818) that displaces the switch (820) of a base portion (812) to close the switch (820) when the insect trap portion (814) is mounted on the base portion (812).

37. The insect trap (810) according to claim 36, further comprising a bottom surface (850) from which the tab (818) protrudes.

38. The insect trap (810) according to claim 36, wherein the base portion (812) further comprises electrically conductive prongs (122) insertable into an electric socket.

39. The insect trap (810) according to claim 38, wherein the switch (820) activates the lighting element (826) when the tab (818) of the insect trap portion (814) displaces the switch (820).

40. The insect trap (810) according to claim 38, wherein the switch (820) deactivates the lighting element (826) when the tab disengages the switch (820).

41. The insect trap (810) according to any of claims 36 to 40, wherein the tab (818) protrudes through an opening (824) in the base portion (812) when the insect trap portion (814) is mounted to the base portion (812).

42. The insect trap (810) according to any of claims 36 to 41, wherein the tab (818) protrudes downward from a bottom surface (850) of the insect trap portion (814).

43. A method of using an insect trap (810) according to any of claims 36 to 42, comprising:

mounting an insect trap portion (814) on the base portion (812), wherein the base portion (812) further comprises electrically conductive prongs (122) insertable into an electric socket, the tab displacing the switch (820) of the base portion (812) to close the switch (820) and

activating the light emitting element (826) when the switch (812) is closed.

44. The method according to claim 43, further comprising removing the insect trap portion (814) from the base portion (812) and deactivating the light emitting element (826).

45. A method of using an insect trap (810) according to any of claims 36 to 42, comprising:

providing a base portion (812) of an insect trap (810), the base portion (812) comprising a docking switch (820);

providing a first trap portion (814) of an insect trap (810), wherein the first trap portion (814) comprises an opening;

mounting the first trap portion (814) to the base portion (812);

coupling the base portion (812) to a power source to provide power to a lighting element (826), wherein the lighting element (826) is within the base portion (812) of first trap portion (814) and wherein the lighting element (826) is configured to attract an insect into the first trap portion (814);

receiving an insect into the first trap portion (814) through the opening; and

wherein the docking switch (820) is configured to activate the lighting element (826) when the first trap portion (814) is correctly mounted to the base portion (812).

46. The method according to claim 45, wherein upon separating the first trap portion (814) from the base portion (812), the lighting element (826) is powered off.

47. The method according to any of claims 45 and 46, further comprising separating the first trap portion (814) from the base portion (812) and disposing of the first trap portion (814), wherein the insect remains in the disposed first trap portion (814).

48. The method according to claim 47, wherein the first trap portion (814) is disposed without human contact with the insect in the first trap portion (814).

49. The method according to any of claims 45 to 48, wherein the first trap portion (814) comprises an adhesive surface and wherein the insect adheres to the adhesive surface.

50. A method of using an insect trap (110), comprising:

a) inserting an insect trap portion (114) into a base portion (112), the insect trap portion (114) comprising an adhesive (136) and the base portion (112) comprising a lighting element (124);

b) emitting light from the lighting element (124) of the base portion (112), wherein the light is transmitted through the adhesive (136);

c) trapping insects in the adhesive (136);

d) removing the insect trap portion (114) from the base portion (112);

e) discarding the entire insect trap portion (114) without touching the trapped insects or the adhesive (136); and

f) inserting a new insect trap portion (114) into the base portion (112).

51. The method according to claim 50, wherein the insect trap portion (114) further comprises:

a front enclosure (146) and a rear enclosure (148);

a divider (134) comprising the adhesive (136), wherein the divider (134) separates the insect trap portion (114) into the front enclosure (146) and the rear enclosure (148); and

a first opening (120) through which an insect may fly or crawl into the front enclosure (146).

52. A method according to any of claims 50 to 51, wherein the adhesive is transparent or translucent.

53. A method according to any of claims 50 to 52, wherein the insect trap portion (114) further comprises a second opening (144) or window through which light from the lighting element (124) is transmitted into the rear enclosure (148) when the insect trap portion (114) engages the base portion (112).

54. A method according to any of claims 51 to 53, wherein the divider (134) is substantially planar.

55. A method according to any of claims 50 to 54, wherein front enclosure (146) is enclosed by a front housing (118) and the rear enclosure (148) is enclosed by a rear housing (140), the front housing (118) and the rear housing (140) being joined together to form the enclosure.

56. A method according to claim 53, wherein the first opening is formed in the front housing (118) and the second opening (144) or window is formed in a bottom surface (166) of the rear housing (118).

57. A method according to claim 55, wherein the front housing (118) and the rear housing (140) are joined together at their perimeters by one of an adhesive, ultrasonic welding or RF sealing.

58. A method according to any of claim 50 to 57, further comprising an insect attractant.

59. A method according to claim 58, wherein the divider comprises the insect attractant.

60. A method according to claim 58, wherein the insect attractant is embedded in a separate piece mounted on an inside surface of the front housing (118).

61. A method according to any of claims 55 to 60, wherein the front housing (118) and the rear housing (140) are formed by injection molding or thermoforming.

62. A method according to any of claims 51 to 61, wherein greater than 60% of the light from the lighting element (124) is transmitted through the divider (134).

63. A method according to any of claims 51 to 62, wherein the divider (134) further comprises a transparent or translucent material onto which the adhesive (136) is coated.

64. A method according to any of claims 50 to 63, wherein the insect trap portion (114) has a width from 20 mm to 200 mm and a height from 20 mm to 200 mm and a depth from 5 mm to 80 mm, preferably a width from 20 mm to 130 mm and a height from 20 mm to 130 mm and a depth from 5 mm to 50 mm.

65. A method according to any of claims 50 to 64, wherein the base portion (112) further comprises electrically conductive prongs (122) insertable into an electric socket.

66. A method according to any of claims 50 to 65, wherein the base portion (112) further comprises a transparent or translucent window (128) through which light from the lighting element (124) is transmitted.

67. A method according to any of claims 50 to 66, wherein the lighting element (124) comprises a first LED that emits blue light and a second LED that emits ultraviolet light.

68. The insect trap (110) according to any of claims 50 to 67, wherein the base portion (112) further comprises a switch (116).

69. The method according to any of claims 50 to 68, wherein the base portion (112) further comprises a slot (130) in a top surface (126) of the base portion (112) that engages the insect trap portion (114) when the insect trap portion (114) is mounted on the base portion (112).

70. The method according to claim any of claims 68 or 69, wherein the base portion (112) further comprises protrusions (132) on the top surface (126) that engage the insect trap portion (114) when the insect trap portion (114) is mounted on the base portion (112).

71. The method according to any of claims 50 to 70, wherein the new insect trap portion (114) of step f) is configured to trap an insect species different from the insect trap portion (114) of step a).

72. An insect trap comprising:

a trap portion including an enclosure having an adhesive surface and a first opening, wherein the adhesive surface is at least partially contained within the enclosure and is configured to adhere to an insect; and

a base portion including a lighting element and a mounting portion, wherein the lighting element is configured to provide light to the trap portion, and wherein the mounting portion is configured to communicate with and receive power from a power source;

wherein the trap portion is configured to removably engage with the base portion and receive light from the base portion when engaged therewith.

73. The trap of claim 72, wherein the first opening is configured to allow an insect to enter into the enclosure.

74 The trap of claim 72, wherein the enclosure includes a second opening, the second opening configured to allow light to emit from the enclosure.

75 The trap of claim 72, wherein, within the base portion, the light is not manipulated.

76. The trap of claim 72, wherein the enclosure includes a third opening, the third opening configured to allow light to be received from base portion into the enclosure.

77. The trap of claim 72, wherein the enclosure is configured to distribute the light in a predetermined pattern.

78. The trap of claim 77, wherein the enclosure comprises:

a front housing portion having a first internal surface; and

a rear housing portion having a second internal surface,

wherein the front housing portion and rear housing portion are matingly engaged with each other to form the enclosure; and

wherein at least one of the first or second internal surfaces is configured to manipulate light.

79. The trap of claim 78, wherein at least one of the first or second internal surfaces comprise an adhesive surface.

80. The trap of claim 79, wherein the rear housing portion has a concave surface, the concave surface configured to reflect light evenly within the enclosure.

81. The trap of claim 80, wherein light is transmitted through the adhesive surface, illuminating the adhesive surface to attract an insect to the adhesive surface.

82. The trap of claim 77, wherein the enclosure comprises:

a front housing portion having a first internal surface;

a rear housing portion having a second internal surface; and

a divider portion disposed at least partially between the front housing portion and rear housing portion,

wherein the front housing portion and rear housing portion are matingly engaged with each other to form the enclosure; and

wherein the divider portion divides the enclosure into a front enclosure portion and a rear enclosure portion.

83. The trap of claim 82, wherein the divider portion includes a rear surface comprising translucent material and includes a front surface comprising an adhesive surface.

84. The trap of claim 82, wherein the second internal surface of the rear housing portion comprises a concave surface, the concave surface configured to reflect light onto the rear surface of the divider portion.

85. The trap of claim 83, wherein light is transmitted through the adhesive surface, illuminating the adhesive surface to attract an insect to the adhesive surface.

86. The trap of claim 83, wherein the rear surface of the divider portion is configured to receive the light from the second internal surface of the rear housing portion or directly from the lighting element.

87. The trap of claim 86, wherein the divider portion is configured to receive light at an oblique angle and spread across the divider portion.

88. The trap of claim 82, wherein the divider portion is configured to manipulate light.

89. The trap of claim 86, wherein the divider portion comprises a planar or contoured shape, wherein the shape of the divider portion is configured to optimize light distribution.

90. The trap of claim 72, wherein the base portion comprises a protrusion and wherein the trap portion comprises a recess for receiving the protrusion, wherein when the protrusion is received by the trap portion, the base portion and trap portion are engaged.

91. The trap of claim 72, wherein the trap portion comprises a protrusion and wherein the base portion comprises a recess for receiving the protrusion, wherein when the protrusion is received by the base portion, the base portion and trap portion are engaged.

92. The trap of claim 72, wherein the trap portion comprises a polymeric, fibrous, or carbon-based material.

93. The trap of claim 72, wherein the mounting portion comprises an electrical plug having rigid conductors protruding substantially perpendicularly and directly from the rear surface of the mounting portion, wherein the conductors are insertable into an electrical power outlet.

94. The trap of claim 72, wherein the power source comprises an electrical power outlet or a battery.

95. The trap of claim 72, wherein the lighting element comprises a light emitting diode (LED).

96. The trap of claim 95, wherein the lighting element comprises an ultraviolet (UV) LED and a blue LED.

97. The trap of claim 72, wherein the base portion comprises an energy stabilizer configured to provide a constant voltage to the lighting element.

98. The trap of claim 97, wherein the energy stabilizer comprises full rectifier circuit.

99. The trap of claim 72, wherein the base portion comprises an opening, the opening configured to allow light to emit from the base portion to the trap portion.

100. The trap of claim 99, wherein the opening comprises a transparent or translucent window.

101. The trap of claim 99, wherein the opening is proximate to the lighting element.

102. The trap of claim 72, wherein the trap portion comprises an insect attractant.

103. The trap of claim 102, wherein the insect attractant is selected from the group consisting of: sorbitol, coleopteran attractants, dipteran attractants, homopteran attractants, lepidopteran, straight chain lepidopteran pheromones, eugenol, methyl eugenol, and siglure.

104. The trap of claim 103, wherein the coleopteran attractants comprise brevicomin, dominicalure, frontalin, grandlure, ipsdienol, ipsenol, japonilure, lineatin, megatomoic acid, multistriatin, oryctalure, sulcatol, and trunk-call.

105. The trap of claim 103, wherein the dipteran attractants comprise ceralure, cue-lure, latilure, medlure, moguchun, muscalure, and trimedlure.

106. The trap of claim 103, wherein the homopteran attractants comprise rescalure.

107. The trap of claim 103, wherein the lepidopteran attractants comprise disparlure.

108. The trap of claim 103, wherein the straight chain lepidopteran pheromones comprise codlelure, gossyplure, hexalure, litlure, looplure, orfralure, and ostramone.

109. The trap of claim 102, wherein the insect attractant is integral to the enclosure.

110. The trap of claim 72, wherein the base portion comprises a transmitter.

111. The trap of claim 110, wherein the transmitter comprises a piezoelectric speaker configured to emit an insect-attracting sound.

112. The trap of claim 111, wherein the insect-attracting sound comprises frequencies in the range of approximately 0.2Hz to 240KHz.

113. The trap of claim 72, wherein the base comprises a switch, the switch configured to allow a user to control a property of the trap.

114. The trap of claim 113, wherein the switch comprises a mechanical switch, an optical switch, an electronic switch, an electromechanical switch, or a Hall effect sensor.

115. The trap of claim 72, wherein the enclosure comprises a reflective surface.

116. The trap of claim 115, wherein the adhesive surface is proximate to the reflective surface.

117. The trap of claim 72, wherein the base portion comprises a circuit configured to a varying voltage to the lighting element, wherein the lighting element provides intermittent light to the trap portion.

118. The trap of claim 72, wherein the enclosure comprises an outer surface, the outer surface at least partially surrounded by sleeve that is configured to reduce the amount of light emitted by the enclosure.

119. The trap of claim 82, wherein the at least one of the first or second internal surfaces comprises a textured surface, the textured surface configured to increase the surface area of the enclosure.

120. The trap of claim 119, wherein the textured surfaces comprises ribs extending at least a portion of the length of the first or second internal surfaces.

121. The trap of claim 84, wherein the at least one of the first or second internal surfaces comprises a textured surface, the textured surface configured to increase the surface area of the enclosure.

122. The trap of claim 121, wherein the textured surfaces comprises ribs extending at least a portion of the length of the first or second internal surfaces.

123. The trap of claim 82, further comprising:

a light conducting body located proximate to the second internal surface of the rear housing portion, the light conducting body having a front surface and a rear surface and the light conducting body configured to receive light from the base portion and distribute the light in a predetermined pattern in the enclosure.

124. The trap of claim 123, wherein the front surface of the light conducting body further comprises an adhesive material.

125. The trap of claim 123, wherein the rear surface of the light reflecting body is configured to reduce the amount of light from being emitted in a predetermined direction.

126. The trap of claim 123, wherein the light conducting body is tapered, having a thicker depth at a portion proximate to the base portion and a thinner depth at an opposite end.

127. The trap of claim 123, wherein the rear surface of the light conducting body is configured to reflect light into the light conducting body.

128. The trap of claim 123, wherein light is reflected multiple times within the light conducting body before being emitted into the enclosure.

129. The trap of claim 123, wherein the rear surface comprises a rear cover or a matte layer.

130. The trap of claim 72, wherein the base portion further comprises an optical enhancer, the optical enhancer configured to direct the light into the trap portion in a predetermined pattern.

131. The trap of claim 130, wherein the optical enhancer comprises a lens.

132. The trap of claim 77, wherein the enclosure comprises an inner sleeve and the base portion comprises an outer sleeve, the inner sleeve configured to align with the outer sleeve.

133. The trap of claim 132, wherein the outer sleeve comprises a face plate having an opening.

134. The trap of claim 132, wherein the face plate opening corresponds to an enclosure opening, the openings providing an alignment means.

135. The trap of claim 132, wherein the inner sleeve is configured to be dropped into the outer sleeve.

136. The trap of claim 135, wherein the inner sleeve comprises a tab for holding on to the inner sleeve.

137. The trap of claim 72, wherein the base portion comprises a docking switch, the docking switch configured to activate the lighting element when the trap portion is correctly engaged with the base portion.

138. The trap of claim 137, wherein the trap portion comprises a docking switch activator, the docking switch activator configured to activate the docking switch when the trap portion is correctly engaged with the base portion.

139. The trap of claim 137, wherein the docking switch comprises a mechanical switch, an optical switch, an electronic switch, an electromechanical switch, or a Hall effect sensor.

140. An insect trap comprising:

a trap portion including:

an enclosure having an adhesive surface and a first opening, wherein the adhesive surface is at least partially contained within the enclosure and is configured to adhere to an insect, and

a lighting element at least partially contained within the enclosure, wherein the lighting element is configured to provide light within the enclosure and wherein the lighting element is configured to communicate with and receive power from a power source; and

a base portion configured to removably engage the trap portion and provide access to the power source.

141. The insect trap of claim 140, wherein the lighting element includes a plurality of electrical trap contacts and wherein the base portion includes a plurality of electrical base contacts, the trap contacts configured to communicate with the base contacts to provide power to the lighting element.

142. The insect trap of claim 141, wherein the base contacts are in communication with the power source.

143. The insect trap of claim 140, wherein the lighting element comprises a light emitting diode (LED).

144. A removable insect trap cartridge comprising:

an enclosure defining the cartridge, the enclosure having an adhesive surface and a first opening,

wherein the adhesive surface is at least partially contained within the enclosure and is configured to adhere to an insect,

wherein the first opening is configured to allow an insect to enter the enclosure, and

wherein the enclosure is configured to provide light in a predetermined pattern within the enclosure.

145. The cartridge of claim 144, wherein the enclosure further comprises a lighting element.

146. The cartridge of claim 145, wherein the lighting element comprises a light emitting diode (LED).

147. The cartridge of claim 146, wherein the lighting element comprises an ultraviolet (UV) LED and a blue LED.

148. The cartridge of claim 144, wherein the enclosure comprises:

a front housing portion having a first internal surface; and

a rear housing portion having a second internal surface,

wherein the front housing portion and rear housing portion are matingly engaged with each other to form the enclosure; and

wherein at least one of the first or second internal surfaces is configured to manipulate light.

149. The cartridge of claim 148, wherein at least one of the first or second internal surfaces comprise an adhesive surface.

150. The cartridge of claim 144, wherein the rear housing portion has a concave surface, the concave surface configured to reflect light evenly within the enclosure.

151. The cartridge of claim 144, wherein light is transmitted through the adhesive surface, illuminating the adhesive surface to attract an insect to the adhesive surface.

152. The cartridge of claim 144, wherein the enclosure comprises:

a front housing portion having a first internal surface;

a rear housing portion having a second internal surface; and

a divider portion disposed at least partially between the front housing portion and rear housing portion,

wherein the front housing portion and rear housing portion are matingly engaged with each other to form the enclosure; and

wherein the divider portion divides the enclosure into a front enclosure portion and a rear enclosure portion.

153. The cartridge of claim 152, wherein the divider portion includes a rear surface comprising translucent material and includes a front surface comprising an adhesive surface.

154. The cartridge of claim 153, wherein the second internal surface of the rear housing portion comprises a concave surface, the concave surface configured to reflect light onto the rear surface of the divider portion.

155. The cartridge of claim 154, wherein light is transmitted through the adhesive surface, illuminating the adhesive surface to attract an insect to the adhesive surface.

156. The cartridge of claim 154, wherein the rear surface of the divider portion is configured to receive the light from the second internal surface of the rear housing portion or directly from a lighting element.

157. The cartridge of claim 144, wherein the enclosure comprises a bottom surface, the bottom surface configured to be removably received in a pluggable base.

158. The cartridge of claim 144, wherein the enclosure comprises biodegradable materials.

159. The cartridge of claim 144, wherein the enclosure comprises an outer surface, the outer surface including a decorative element.

160. The cartridge of claim 159, wherein the decorative element comprises a shape selected from the group consisting of: a flower, a plant, a shell, a company logo, a sports team logo, a football, a basketball, a soccer ball, a hockey puck, a football helmet or a hockey stick.

161. The cartridge of claim 144, wherein the trap portion comprises an insect attractant.

162. The cartridge of claim 161, wherein the insect attractant is selected from the group consisting of: sorbitol, coleopteran attractants, dipteran attractants, homopteran attractants, lepidopteran, straight chain lepidopteran pheromones, eugenol, methyl eugenol, and siglure.

163. The cartridge of claim 161, wherein the insect attractant is detectable by an insect at a distance of approximately 2 meters from the cartridge.

164. The cartridge of claim 144, wherein the enclosure comprises a textured surface, the textured surface configured to increase the surface area of the enclosure.

165. The cartridge of claim 144, wherein the textured surface comprises ribs extending at least a portion of the length of the enclosure.

166. The cartridge of claim 144, further comprising:

a light conducting body located within the enclosure, the light conducting body configured to receive light and distribute the light in a predetermined pattern in the enclosure.

167. The cartridge of claim 144, wherein the enclosure comprises an inner sleeve that is configured to be received into and aligned with an outer sleeve.

168. The cartridge of claim 167, wherein the outer sleeve comprises a face plate having an opening.

169. The cartridge of claim 168, wherein the face plate opening corresponds to an enclosure opening, the openings providing an alignment means.

170. The cartridge of claim 167, wherein the inner sleeve comprises a tab for holding on to the inner sleeve.

171. The cartridge of claim 144, wherein the cartridge comprises a docking switch activator, the docking switch activator configured to activate a docking switch when the cartridge is correctly engaged with a base portion.

172. The cartridge of claim 171, wherein the docking switch activator comprises a mechanical switch, an optical switch, an electronic switch, an electromechanical switch, or a Hall effect sensor.

173. A method comprising:

providing a base portion of an insect trap;

providing a first trap portion of an insect trap, wherein the first trap portion comprises an opening;

mounting the first trap portion to the base portion;

coupling the base portion to a power source to provide power to a lighting element, wherein the lighting element is within the base portion or first trap portion and wherein the lighting element is configured to attract an insect into the first trap portion; and

receiving an insect into the first trap portion through the opening.

174. The method of claim 173, further comprising:

separating the first trap portion from the base portion; and

disposing of the first trap portion,

wherein the insect remains in the disposed first trap portion.

175. The method of claim 174, wherein the first trap portion is disposed without human contact with the insect in the first trap portion.

176. The method of claim 173, wherein the first trap portion comprises an adhesive surface and wherein the insect adheres to the adhesive surface.

177. The method of claim 173, wherein the base portion comprises a docking switch, wherein the docking switch is configured to activate the lighting element when the first trap portion is correctly mounted to the base portion.

178. The method of claim 174, wherein upon separating the first trap portion from the base portion, the lighting element is powered off.

179. The method of claim 174, wherein upon separating the first trap portion from the base portion, the lighting element is at least partially shielded from emitting light.

180. The method of claim 174, further comprising:

providing a second trap portion of an insect trap, wherein the second trap portion comprises an opening; and

mounting the second trap portion to the base portion.

181. The method of claim 180, wherein the first insect trap and second insect trap have different configurations.

182. A docking apparatus comprising:

a docking structure configured to activate in response to a docking activator, the docking activator located on a separate piece configured to engage the docking structure,

wherein the docking structure is in communication with a power source and is configured to control power to a lighting element.

183. The apparatus of claim 182, wherein the docking activator comprises a surface, a protrusion, a tab or a magnet.

184. The apparatus of claim 182, wherein the docking structure is configured to close when the docking activator engages with it and is configured to open when the docking activator disengages from it.

185. The apparatus of claim 182, wherein the docking structure is configured to activate in response to pressure from the docking activator.

186. The apparatus of claim 182, wherein the docking structure is configured to activate in response to displacement from the docking activator.

187. A removable insect trap cartridge comprising:

an enclosure defining the cartridge, the enclosure having an adhesive surface and a first opening,

wherein the adhesive surface is at least partially contained within the enclosure and is configured to adhere to an insect, and

a docking activator, the docking activator configured to engage a docking structure in a mounting portion.