

Southeast Coast Network

National Park Service
Inventory and Monitoring Division



Standard Operating Procedure 3.1.01

Identification, Treatment, and Reporting of On-Duty Injury and Illness—Version 3.0

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Summary

This standard operating procedure (SOP) explains the steps involved in handling an on-duty or job-related injury or illness. Read this SOP prior to implementing fieldwork, and keep a copy in all vehicles for quick reference.

Revision Log

Previous Version #	Revision Date	Author	Changes Made	Reason for Change	New Version #
1.0	4/20/11	MM, JP	First Draft	--	N/A
1.0	5/12/2011	SC	Additions to content	Earlier omissions	1.1
1.0	12/10/2012	SC	Additions to SMIS instructions	Response to comments from reviewer	1.1
	2/27/15	BS	Added templates for injury and tick logs	No printable version for the field	
2.0	12/2016	Editor	Editorial review	Protocol publication	3.0

Overview of Procedure

Always file a worker's compensation claim if injury or illness occurs while on the job.

1. If the employee requires medical attention, he/she should get it immediately. If possible, obtain a CA-16 form, which allows for direct billing to the government for incurred medical expenses, prior to treatment. The form can be obtained from the Southeast Coast Network (SECN) safety officer (Sarah Corbett Heath), Sandra Owensby in Atlanta (404-507-5764), or the safety officer for the park where the injury occurred. This form is controlled property and requires the signature of the supervisor or someone else with signatory authority (e.g., superintendent, deputy superintendent, in some cases the park safety officer). Given the nature of fieldwork, it is possible that in some cases this form will not be easy to access at the time of injury or illness. Do not delay medical attention to obtain this form. If necessary, handle the billing or reimbursement for medical costs after the injury or illness, during the workers' compensation claim process.
2. As soon as possible after treatment, the employee must go to the DOI Safety Management Information System (SMIS) at <https://www.smis.doi.gov> to file a report online about the specifics of the injury/illness. To report the injury:
 - a. Select the **Employee** button under **File Your Workers' Comp Claim**.
 - b. Enter your last name in the **Last Name** field and the last four digits of your social security number in the **DOI User Validation** field, then press **Enter** or click **Employee Login**.
 - c. On the next page, verify your email address. Press **Enter** or click **Verify**.
 - d. You should receive an email shortly with your claim ID. Enter the claim ID in the **ClaimID** field then press **Enter** or click **Continue**.
 - e. On the next page, select the appropriate report type (CA-1 for injury, CA-2 for illness/disease). The proper names for these forms are: CA-1 (*Federal Notice of Traumatic Injury and Claim for Continuation of Pay / Compensation*), and CA-2 (*Notice of Occupational Disease and Claim for Compensation*). For definitions or instructions, click on the "**Section Help**" buttons. Enter all the required information in the form. Make certain to enter the supervisor's email address. An email is automatically sent to the supervisor to alert them to fill out the supervisory section of the worker's compensation claim in SMIS. After entering all the general form data, click **Save** and **Continue**.
 - f. On the next page, enter the injury/disease information requested with as much detail as possible. Make certain to check the appropriate box under the "Employee Certification" section, then click **Complete your Claim Submission**. A workers' compensation coordinator will contact you shortly if the claim is for continuation of pay (COP; i.e., workers' compensation).

NOTE:

It is the employee's responsibility to report the injury as soon as possible. If the employee cannot make the report, it is expected that a proxy will make it (parent, spouse, or friend). It is not recommended that a supervisor make the report.

****The employee is required to click a checkbox agreeing to the following statement:**

I hereby authorize any physician or hospital (or any other person, institution, corporation, or government agency) to furnish any desired information to the U.S. Department of Labor, Office of Workers' Compensation programs (or to its official representative). This authorization also permits any official representative of the Office to examine and to copy any records concerning me. Any person who knowingly makes any false statement, misrepresentation, concealment of fact, or any other act of fraud to obtain compensation as provided by the FECA or who knowingly accepts compensation to which that person is not entitled is subject to civil or administrative remedies as well as felony criminal prosecution and may, under appropriate criminal provisions, be punished by a fine or imprisonment or both.

****Be aware that this does NOT give the Southeast Regional Office the authority to review your medical records. It does give authority to personnel involved in reviewing the merits of the worker's compensation claim.**

3. The regional safety officer will follow up with any questions or corrections to forms. The Southeast Region (SER) safety manager is Lawrence (Joe) Jacobs (404-507-5631).
4. Even if work time is lost, it is imperative that the injury/illness be reported (via phone, fax, or in person) to the employee's supervisor immediately. Email a written memo detailing how the injury occurred to the supervisor by the end of the day on which the injury occurred, if possible.
5. Supervisors: The supervisor will receive an email alert from the SMIS with instructions on filling out the supervisory section of the SMIS worker's compensation claim. To login, access the SMIS system at the main "Safety Management Information System" screen, and click **Supervisors**.
 - a. In the **Last Name** field, type your last name.
 - b. In the **DOI User Validation** field, type the last four digits of your social security number.
 - c. Press **Enter** or click **Supervisor Login**.
 - d. In the **Please verify/enter your Internet E-Mail Address below** field, type or verify your email address and click **Verify**.

6. Upon completion of the supervisory portion of the injury/illness report, the claim is sent to Sandra Owensby, who is the National Park Service (NPS) Southeast Region workers' compensation coordinator. She will further process the claim and forward it to the U.S. Department of Labor Office of Workers' Compensation Programs (OWCP) in Jacksonville, Florida. The claim will be reviewed and the employee will be sent a worker's compensation claim number. Expect this process to take several months.
7. After the worker's compensation claim number is assigned, it is the employee's responsibility to provide all medical documentation supporting the claim to the U.S. Department of Labor. This includes any medical reports, tests, and notes from hospitals and doctor offices where the employee was seen. All documentation should be sent to:

U.S. Department of Labor
Federal Employee Compensation
District 6
P.O. Box 8300
London, KY 40742
8. If an injury occurs in a park, particularly if the injury requires reporting, notify the park safety officer. Park safety officers are held accountable for incidents in their parks, so alerting them of an incident occurring in their park should be common practice.

Specific Cases

Tick Bites/Illnesses

Tick bites are common at many of the Southeast Region parks, and the likelihood of contracting tick-borne illness is high among SECN employees. In 2010, one SECN employee had a confirmed case of Lyme disease and another SECN employee had similar symptoms, although extensive diagnostic testing was inconclusive. You do not need to report tick bites (as with bee stings and other recurring incidents) individually. However, keep a field log with the date of bites, number of bites, types of ticks, etc. When a tick-related illness is suspected, the employee should request medical tests to determine the exact nature of the illness so that it can be reported under a worker's compensation claim.

There are three important disease-carrying tick species in the southeastern United States (Figure 1): the lone star tick (*Amblyomma americanum*), the blacklegged tick (*Ixodes scapulari*), and the American dog tick (*Dermacentor variabilis*), each of which transmits different disease agents.

These three tick species carry various bacteria and protozoa that can cause several serious diseases in humans (Table 1).

Lone star tick (<i>Amblyomma americanum</i>)	
Blacklegged tick / Deer tick (<i>Ixodes scapulari</i>)	
American dog tick / Wood tick (<i>Dermacentor variabilis</i>)	

Figure 1. Disease-carrying ticks of the southeastern United States. Photos courtesy of Centers for Disease Control and Prevention (lone star tick, American dog tick) and Agricultural Research Service (blacklegged tick).

Table 1. Tick-borne diseases and their associated symptoms.

Disease	Symptoms
Anaplasmosis	Headache, fever, chills, muscle pain
Babesiosis	Fatigue, loss of appetite, fever, drenching sweats, muscle ache, headaches, death possible
Ehrlichiosis	High fever and headache, tiredness, nausea, vomiting, muscle ache, loss of appetite, rash in 20% of cases, death possible
Lyme disease	Painless circular lesion in area of bite (95%), lethargy, headache, muscle and joint pain, enlarged lymph nodes, meningitis (10–15%), heart problems (<10%), arthritis (60%)
Relapsing fever	Chills, headache, muscular pains, vomiting, rash; fever for 3–5 days, then clears, followed by a relapse 1–2 weeks later
Rocky Mountain Spotted Fever	High fever, headache, chills, muscle pain; pink rash on wrists, ankles, soles, palms, and trunk that turns dark and can develop into ulcers; death possible
Southern Tick-Associated Rash Illness (STARI)	Expanding bulls eye rash, fatigue, muscle pain, headache
Tick paralysis	Ascending weakness or ataxia, followed by full-body paralysis
Tularemia	Ulcer, enlarged lymph nodes, pneumonia

The best way to prevent a tick-borne illness is to keep ticks away. Some actions to take when working in tick-infested areas include:

- Tuck pant legs into socks and tuck shirt into pants **OR** use duct tape to seal off openings.
- Use a tick repellent such as DEET or permethrin.
- Perform a body check at the end of the day, paying particular attention to hair, armpits, navel, area behind the ears, and groin. Check clothing for insects.

If you find a tick on the body, quick removal is the best course of action:

1. Grasp the tick as close as possible to the skin using tweezers if available. If tweezers are unavailable, use fingers, but shield them with a piece of paper (Figure 2).
2. Pull outward on the tick with a steady, even pressure (Figure 2). **Do not jerk, twist, squeeze, crush, or puncture the tick's body. Doing so may cause the injection of fluids into the wound. If you cannot remove the tick or if its head detaches, seek medical help.**
3. Keep the tick for later identification, in case illness occurs.

4. After removing the tick, disinfect the area with alcohol or soap and water.
5. Be aware of general warning signs that could occur a few days after infection, such as fever, chills, muscle pain, headache, fatigue, and a large red spot on the bite area. If similar symptoms occur, seek medical help.

You can find more information on tick-related illness signs and symptoms at the Centers for Disease Control and Prevention (CDC) website at <http://www.cdc.gov/ticks/diseases/> or at <http://www.tickencounter.org>.

Insect Bites

Insect bites are common and irritating. They are not life threatening, but can cause swelling and redness. Take the following steps to lessen the chance of insect bites:

- Wear long sleeves and pants.
- Avoid wearing strong lotion, soap, perfume, cologne, or other powerful scents.
- Use insect repellents such as DEET or picaridin, or treat clothing with permethrin.
- Be aware of the symptoms of mosquito-borne illness, such as extreme fatigue or sleepiness, muscle pain, headache, disorientation, fever, or neck stiffness. If these signs occur, seek medical help.

You can find more information about mosquito-borne illness at the CDC website http://www.cdc.gov/ncidod/diseases/list_mosquitoborne.htm or at <http://www.mosquito.org/mosquito-borne-diseases>.

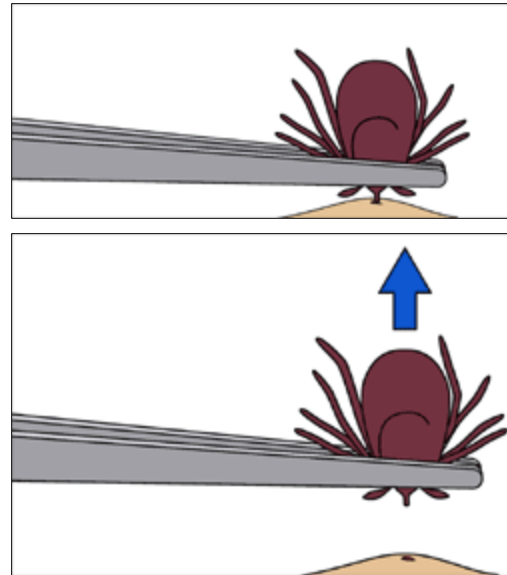


Figure 2. Proper removal method for embedded ticks.

Allergic Reactions

There are numerous causes for allergic reactions. Plants such as poison ivy, poison oak, poison sumac, and Brazilian pepper can all cause reactions upon contact. Allergies to Brazilian pepper are less common than the former; however, repeated exposure to Brazilian pepper sap (especially when using machetes to bushwack through Brazilian pepper) can result in rashes as severe as those caused by poison ivy, oak, and sumac. Stinging nettle and spurge nettle causes immediate contact dermatitis that may subside within a few hours, though in sensitive individuals, it may cause blistering or a lingering rash. Allergic reactions to wasp or bee stings can also occur.

Take the following precautions to prevent rashes from poisonous plants:

- Learn to identify poison ivy, poison oak, poison sumac, Brazilian pepper, stinging nettle, wood nettle, and spurge nettle (Figure 3).
- Wear long sleeves and pants.
- Wash field clothing regularly, because dried resin from the plants can cause a reaction.
- Do not burn poison ivy, oak, sumac, or Brazilian pepper. Doing so can cause severe respiratory problems.
- Rinse off tools to avoid resin contamination.

Poison ivy (<i>Toxicodendron radicans</i>) Anacardiaceae	
Poison oak (<i>Toxicodendron pubescens</i>) Anacardiaceae	
Poison sumac (<i>Toxicodendron vernix</i>) Anacardiaceae	
Brazilian pepper (<i>Schinus terebinthifolius</i>) Anacardiaceae	
Stinging nettle (<i>Urtica</i> spp.) Urticaceae	
Wood nettle / Stinging nettle (<i>Laportea canadensis</i>) Urticaceae	
Tread softly / Bull nettle / Spurge nettle (<i>Cnidoscylus stimulosus</i>) Euphorbiaceae	

Figure 3. Poisonous plants that cause skin rashes in the Southeast. Photos courtesy of U.S. Department of Agriculture (poison ivy, oak, sumac; Brazilian pepper; stinging nettle) and Southeast Coast Network (wood nettle, tread softly).

If Contact with a Poisonous Plant Has Occurred

1. Wash the affected area thoroughly using soap and lots of water.
2. To reduce itching, apply calamine lotion or hydrocortisone cream to the affected area, or take an antihistamine such as Benadryl.
3. If the rash is severe or you have difficulty breathing, seek medical help immediately.

Precautions to Avoid Insect Stings

- Be aware of nests or hives in brush or hollow logs. Insects travelling to or from a location may indicate a nest or hive.
- Wear long sleeves and pants.
- Tuck shirt into pants and pants into socks.
- Avoid wearing bright colors and jewelry or other metal objects.
- Avoid wearing anything strongly scented.
- Do not swat at stinging insects when encountered.
- Carry emergency medication at all times.

If Stung By an Insect

1. If the stinger is still in the skin, scrape it off with a knife blade or fingernail. **Do not use tweezers to remove the stinger; this could cause the release of more venom into the wound.**
2. Apply cool water or a cold compress to the area to reduce swelling and pain.
3. Take an antihistamine such as Benadryl if stung more than once.
4. If the individual develops a widespread rash, asthmatic breathing, tissue swelling, a drop in blood pressure, or unconsciousness, seek immediate medical help.

For more information about poisonous plants or stinging insects, visit the CDC website at <http://www.cdc.gov/niosh/topics/insects/> or consult the *NPS Safety and Health for Field Operations* guide.

Dehydration and Heat Stress

Dehydration, salt loss, and extended exposure to high temperatures can lead to serious problems such as heat cramps, heat exhaustion, and heat stroke.

Symptoms of heat cramps, which occur from excessive water and salt depletion, include nausea, muscle twitching, and sometimes severe cramping of abdominal muscles, legs, or other muscles. To prevent heat cramps, a person should drink 3 to 6 ounces of water every 15 minutes when active. Replace salts by lightly salting the water or drinking commercial electrolyte fluids. If heat cramps occur, move the affected person to a cool place, give them person water or electrolyte fluids, and massage the cramping muscles.

Heat exhaustion occurs when there is not enough blood reaching the brain. The symptoms of heat exhaustion are rapid and shallow breathing, a weak pulse, cold and clammy skin, heavy sweating, weakness, and dizziness. To prevent heat exhaustion, drink plenty of water and take breaks from working at high temperatures to prevent overheating. If affected by heat exhaustion, quickly do the following:

1. Move to a cool place to lie down and rest.
2. Drink water and electrolyte fluids.
3. If a person becomes unconscious, elevate the feet above the head to allow blood to flow more easily to the head. **Do not try to administer fluids to an unconscious person.** Once the person wakes, give them water and electrolyte fluids, and seek medical attention.

Heat stroke is the most serious heat-related condition, and can be life threatening. Heat stroke occurs when a person's body is unable to regulate its temperature. Sweating stops and the body's temperature rises dangerously high. **This will result in death if not treated quickly.** If someone becomes confused or starts acting strangely while working in very hot conditions, he or she may be experiencing a heat stroke. Other symptoms include shallow breathing, rapid weak pulse, and hot/dry skin. Loss of consciousness, seizures, and muscle twitching can also occur. **This is an emergency.** If someone displays these symptoms, perform the following actions as quickly as possible:

1. Move as quickly as possible into a cool place such as a shaded area and have the person lie down.
2. Cool the person as rapidly as possible by removing clothes, wrapping him or her in wet towels, sheets, etc., and pouring cool water over the person.
3. If ice packs are available, place them under the person's armpits, behind the knees, on the groin, on each wrist and ankle, and on each side of the neck.
4. Fan the person to increase evaporative heat loss.
5. Massage the limbs to allow cooler blood to return to the body's core more quickly.
6. Get the person to a hospital as soon as possible. His or her temperature regulation ability will be unstable for some time.

Preventing heat-related illnesses and dehydration is obviously a better course of action than trying to treat someone who is already affected. Some general tips to remember when working in a hot environment include the following:

- Stay in the shade as much as possible.
- Reduce level of activity, move more slowly, and take breaks as necessary.
- Reduce eating (especially salts and proteins) unless there is plenty of water.
- Keep clothing on to protect from the sun and to make the cooling effects of evaporation last longer.
- Drink a lot of water, even if not thirsty.
- Try not to sit or lie on the ground, as it can be much hotter than the air above.

For more information about heat-related illnesses, consult the NPS *Safety and Health for Field Operations* guide or read more about them in *Wilderness Medicine* by William W. Forgey, M.D.

Snake Bites

Of the 52 species of snakes found in the Southeast, six are venomous. Figure 4 has photographs of these six species: cottonmouth (*Agkistrodon piscivorus*), copperhead (*Agkistrodon contortrix*), timber/canebrake rattlesnake (*Crotalus horridus*), eastern diamondback rattlesnake (*Crotalus adamanteus*), pygmy rattlesnake (*Sistrurus miliarius*), and coral snake (*Micrurus fulvius*). The coral snake is the only venomous snake of the Southeast that is not a pit viper.

In the Southeast, copperheads bite more people than any other venomous snake. The venom destroys red blood cells and other tissues, but it is not highly toxic to humans, with only one death recorded. Copperheads release a musky odor when disturbed and most will bite if picked up.

Signs of Envenomation

It is important to recognize the symptoms of envenomation (Table 2) to avoid needless worry, evacuation, and improper treatment. Most bites do not result in envenomation, because the snake does not release venom, the skin is not penetrated, or the venom is not potent.

Table 2. Symptoms of Snakebite Envenomation

Hemotoxic symptoms	Neurotoxic symptoms
Confusion	Diplopia (double vision)
Rapid pulse	Dysphagia (difficulty swallowing)
Ecchymoses (large bruises)	Hyporeflexia (abnormal reflexes)
Vomiting	Minimal pain
Intense pain	Paralysis
Numbness or tingling	Paresthesia (often numb at bite site)
Bleeding disorders	Ptosis (droopiness)
Edema	Respiratory depression
Unusual metallic taste	Salivation
Muscle twitching	Sweating

Cottonmouth (<i>Agkistrodon piscivorus</i>)	
Copperhead (<i>Agkistrodon contortrix</i>)	
Timber rattlesnake (<i>Crotalus horridus</i>)	
Eastern diamondback rattlesnake (<i>Crotalus adamanteus</i>)	
Pigmy rattlesnake (<i>Sistrurus miliarius</i>)	
Coral snake (<i>Micrurus fulvius</i>)	

Figure 4. Venomous snakes found in the southeastern United States. Photos courtesy of Edward J. Wozniak of CDC (cottonmouth, copperhead), free images (eastern diamondback and pigmy rattlesnake), and NPS (timber rattlesnake and coral snake).

Table 3. Grading scale for severity of snake bites.

Degree of envenomation	Presentation	Treatment
0. None	Punctures or abrasions; some pain or tenderness at the bite	Local wound care, no antivenin
I. Mild	Pain, tenderness, edema at the bite; perioral paresthesia may be present	If antivenin is necessary, administer about five vials*
II. Moderate	Pain, tenderness, erythema, edema beyond the area adjacent to the bite; often, systemic manifestations and mild coagulopathy	Administration of 5 to 15 vials of antivenin may be necessary
III. Severe	Intense pain and swelling of entire extremity, often with severe systemic signs and symptoms; coagulopathy	Administer at least 15 to 20 vials of antivenin
IV. Life-threatening	Marked abnormal signs and symptoms; severe coagulopathy	Administer at least 25 vials of antivenin

* Because of their less potent venom, grade-I copperhead bites are usually not treated with antivenin.

Treatment for Snake Bites

1. Avoid panic. Instruct the victim to back out of the snake's striking range, which is approximately the length of the snake.
2. Immobilize the bitten extremity by splinting as if for a fracture. Keep the limb well-padded and at heart level (neither elevated nor lowered) in a position of function.
3. Encourage the victim to drink liquids to maintain adequate hydration.
4. Arrange transport for the victim to the nearest medical facility, with minimal exertion.

For more information concerning venomous snakes and how to treat snake bites:

- Visit the CDC website at <http://www.cdc.gov/niosh/topics/snakes/>,
- Consult the *NPS Occupational Safety and Health Field Manual* (NPS 2014).
- Consult the *NPS Occupational Safety and Health Program: Reference Manual 50B* (NPS 2015).
- Check out *Wilderness Medicine: Beyond First Aid*, 6th edition (Forgey 2012).
- Read the *Field Guide to Wilderness Medicine*, 4th edition (Auerbach et al. 2013).

Trailblazing

Trailblazing is the process of making a new path or way (i.e., cutting a path through thick vegetation with a machete). There are several things to be cautious of when making your way through thick vegetation with a machete:

- Wear leather gloves when using a machete.
- Use a security strap around the wrist connected to the machete handle in case of slippage.
- Be aware of the location of other people that are nearby.
- Swing the machete diagonally to the plane of the body.
- Be aware of sharp edges from machete cuts and briars (falling or tripping could cause serious injury).
- Have secure footing at all times. Do not assume rotten or loose-barked logs are secure footing.
- Be on guard for falling branches or logs.
- Be alert for venomous snakes or biting or stinging insects and their nests in the area.

For more information on hazards in the field, consult the NPS *Safety and Health for Field Operations* guide.

Additional Notes for Supervisors

1. If the employee does not fill out a report or if there is no loss of time, a supervisory report can still be filled out. Fill one out for any incident that requires a doctor's visit. It is advised to do this for injuries that might recur or cause issues later, regardless of whether or not work time was lost.
2. Supervisors should call and conduct boards of review for serious or recurring incidents.
3. Supervisors are held accountable for work injuries of their employees.

Other Circumstances

1. Death on the job due to heart attack is a safety issue that requires investigation. The National Park Service has eight hours to report these deaths to the Federal Occupational Safety and Health (OSHA) office. The safety officer (either park or regional) is responsible for reporting this type of incident and the supervisor should make sure the report is made within eight hours.
2. If OSHA is not notified within eight hours, jurisdiction of the investigation automatically transfers to OSHA, which will essentially shut down operations until the investigation is complete.

Literature Cited

National Park Service Occupational Safety and Health Field Manual. 2014. Quick Series Publishing, Canada.

Auerbach, P.S., B.B. Constance, and L. Freer. 2013. Field Guide to Wilderness Medicine, 4th Edition. Mosby, Philadelphia, PA.

Forgey, W.W. 2012. Wilderness Medicine: Beyond First Aid, 6th Edition. Falcon Guides, Guilford, CT.

National Park Service Safety and Health for Field Operations, Reference Guide 50B. 2008.
<http://www.nps.gov/policy/RM50Bdoclist.htm> (last accessed 20 November 2015).

EMPLOYEE ACCOUNTABILITY FORM

I certify that I have read and I am familiar with SECN Standard Operating Procedure 3.1.01
Identification, Treatment, and Reporting of On-duty Injury and Illness.

I understand that lack of compliance with this SOP may result in disciplinary action.

Name

Date

Appendix A

Sample tick bite/minor injury logs and blank tick bite/minor injury logs

Date	Employee Name	Park Name	Description of injury and how injury occurred
5/9/2010	John Smith	CUIS	Cut above left eye caused by saw palmetto. First Aid applied/no other immediate medical attention required.
5/11/2010	Jill Jones	CUIS	Poked eye w/ twig. Pain, but no other serious effects.
6/2/2010	John Smith	CALO	Cut thumb with pocket knife while cutting piece of string. No stitches/ medical attention required.
6/3/2010	Jill Jones	CALO	3 Stings from red paper wasps. No immediate medical attention required.
6/5/2010	Jill Jones	CALO	Rash larger than silver dollar on both knees and upper right arm due to exposure to poison ivy.
6/7/2010	Jill Jones	CALO	Enlargement of previous rash and new rashes larger than silver dollar on right leg and left arm due to exposure to poison ivy.
6/8/2010	John Smith	CALO	1 sting by a yellow jacket. No immediate medical attention required.
6/10/2010	John Smith	CALO	Thorn from Smilax lodged under fingernail several days ago, appears to be infected. First aid applied, no other immediate medical attention required.
7/2/2010	Jane Johnson	HOBE	Tripped in woods, landed on rock with left knee causing pretty bad bruising. No other effects at this time.
7/14/2010	John Smith	HOBE	2 stings by yellow jackets. No immediate medical attention required.
7/16/2010	Jill Jones	HOBE	3 stings by yellow jackets. No immediate medical attention required.
7/21/2010	John Smith	HOBE	Serious poison ivy rash on both knees. Rash contained, not seeking medical attention at this time.
7/30/2010	Jane Johnson	HOBE	Fell while crossing stream, landed on stick poking through mud, causing laceration of left leg. Laceration not severe, no immediate medical attention required.

Figure A1. Sample minor injury and insect sting log.

[illegible]

Figure A2. Blank minor injury and insect sting log.

Tick Bite Log-2010

Date	Employee Name	Park Name	Number of Bites/Type of Tick if Known
7-May	Mark Jones	HOBE	1 (deer)
7-May	Jill Jones	HOBE	1 (lonestar)
7-May	Paul Smith	HOBE	1 (deer)
29-May	Mark Jones	HOBE	2 (deer)
1-Jun	Jill Jones	HOBE	2 (deer + lonestar)
2-Jun	Jill Jones	HOBE	3 (deer + wood)
3-Jun	Jill Jones	HOBE	3 (deer + wood)
3-Jun	Jane Johnson	HOBE	1 (deer)
3-Jun	Mark Jones	HOBE	1 (deer)
3-Jun	Jane Johnson	HOBE	2 (lonestar)
5-Jun	Paul Smith	HOBE	4 (lonestar + deer)
6-Jun	Mark Jones	HOBE	1 (lonestar)
6-Jun	Paul Smith	HOBE	1 (lonestar)
7-Jun	Jill Jones	HOBE	4 (deer + lonestar)
8-Jun	Jill Jones	HOBE	5 (deer)
8-Jun	Jane Johnson	HOBE	2 (wood)
8-Jun	Paul Smith	HOBE	1 (lonestar)
10-Jun	Mark Jones	KEMO	2 (lonestar)
10-Jun	Jill Jones	KEMO	7 (deer + wood)
10-Jun	Paul Smith	KEMO	1 (deer)
12-Jun	Mark Jones	KEMO	2 (deer)
12-Jun	Jill Jones	KEMO	2 (deer)
12-Jun	Jane Johnson	KEMO	3 (wood + deer)
12-Jun	Paul Smith	KEMO	2 (lonestar)
13-Jun	Paul Smith	KEMO	1 (lonestar)
15-Jun	Jill Jones	KEMO	1 (deer)
16-Jun	Jill Jones	KEMO	5 (lonestar, deer, wood)
16-Jun	Jane Johnson	KEMO	2 (wood)
16-Jun	Paul Smith	KEMO	2 (unknown + lonestar)
29-Jun	Paul Smith	KEMO	1 (lonestar)
17-Jul	Jill Jones	OCMU	3 (deer + lonestar)
18-Jul	Jill Jones	OCMU	1 (wood)
18-Jul	Mark Jones	OCMU	3 (wood + lonestar)
20-Jul	Jill Jones	OCMU	1 (wood)
20-Jul	Mark Jones	OCMU	3 (lonestar)

Figure A3. Sample tick bite log.

