



# Conducting Manual Counts

**Connecticut Trail Census**  
Statewide multi-use trail user study



# Manual Counts

## Why?

### Infrared Pedestrian Counters:

- Consistently undercount
  - Side by side
  - Groups
  - Higher speed cyclists
- Can overcount
  - Animals
  - Weather/ wind
- Cannot distinguish between cyclists, pedestrians, “other” uses.



# Manual Counts

## Why?

### In-Person Counts:

- Used to develop a calibration factor for more accurate IR counts
- Collect information that IR counters cannot:
  - Mode (Bike, Ped, Other)
  - Group size
  - # of children



# Manual Counts

## How?

### You will need...

- A watch with a second hand **OR** a smartphone with service at counter location
- Clipboard\*
- Manual Count Form\*
- Pen/Pencil\*
- One page instruction sheet\*

\*Provided



PHOTO: Boston Region MPO

# Manual Counts

## How?

1. Synchronize with “Official US Time”
  - Counters are on US Official Time (DST) [www.time.gov](http://www.time.gov)
  - All manual counts need to start at the top of the hour and continue for entire hour.



# Manual Counts

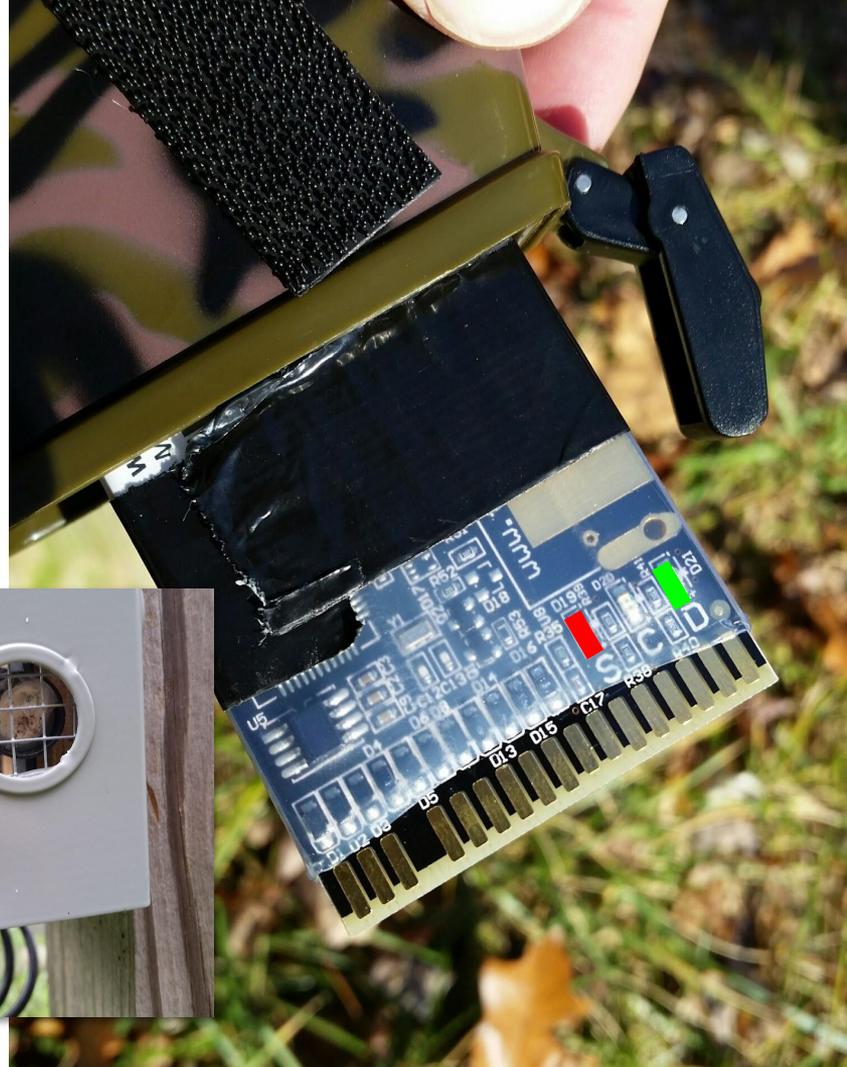
## How?

1. Synchronize with “Official US Time”
2. **Choose A Location**
  - Line of sight to counter
  - Bring a chair or sit in car
  - Be unobtrusive - you should be a *passive observer!*



# Manual Counts How?

1. Synchronize with "Official US Time"
2. Choose A Location
3. **Check the Counter**
  - Is it working?
  - Clear Scope?
  - Red 1X/ 5 seconds.
  - Green when tripped.



# Manual Counts How?

1. Synchronize with "Official US Time"
2. Choose A Location
3. Check the Counter
4. **Prepare Count Form**
  - Date
  - Location
  - Volunteer Name
  - Time Start ([www.time.gov](http://www.time.gov))
  - Weather



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**Manual Count Form**

All times Eastern Daylight Saving ([www.time.gov](http://www.time.gov)). Begin at top of the hour, record for full hour.  
 Record groups on the same line. Record bicyclists and pedestrians separately.  
 Record strollers, skateboards, wheelchairs, etc. as "other", list type in comments.  
 Record additional activity in comments - jogging, walking dog, etc.  
 Estimate the number of children (under 18) in the group in "#<18" column.  
 (note that children should be included as "Ped, Bike or Other" as well)  
 Send scanned completed forms to: [cttrailcensus@gmail.com](mailto:cttrailcensus@gmail.com), and return original with surveys.

Date \_\_\_\_\_

Location \_\_\_\_\_

Name \_\_\_\_\_

Time Start \_\_\_\_\_ :00<sup>am</sup> Count 1 Hour

Weather \_\_\_\_\_

#	Time	Ped	Bike	Other	Comment	# <18	#	Time	Ped	Bike	Other	Comment	# <18		
1							41								
2							42								
3							43								
4							44								
5							45								
6							46								
7							47								
8							48								
9							49								
10							50								
11							51								
12							52								
13							53								
14							54								
15							55								
16							56								
17							57								
18							58								
19							59								
20							60								
21							61								
22							62								
23							63								
24							64								
25							65								
26							66								
27							67								
28							68								
29							69								
30							70								
31							71								
32							72								
33							73								
34							74								
35							75								
36							76								
37							77								
38							78								
39							79								
40							80								
<b>HOOR TOTALS:</b>															=















# Manual Counts How?

## At the end of the hour:

- Total up all peds, bike and others
- Begin a new sheet if continuing
- E-mail a scan or image of the sheet to [cttrailcensus@gmail.com](mailto:cttrailcensus@gmail.com)



**Connecticut Trail Census**  
Statewide multi-use trail user study

Manual Count Form

Date 6/2/2019

Location Hop River - Bolton

Name Aaron Budris

Time Start 11:00 AM Count: 1 Hour

Weather 75 degrees, sunny

All times Eastern Daylight Saving ([www.time.gov](http://www.time.gov)). **Begin at top of the hour, record for full hour.**  
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#	Time	Ped	Bike	Other	Comment	# <18	#	Time	Ped	Bike	Other	Comment	# <18
1	11:04	3			walking		41						
2	11:11	1			running		42						
3	11:15	1		1	walking with stroller	1	43						
4	11:17	1			walking dog		44						
5	11:18		1				45						
6	11:23		4		group of cyclists		46						
7	11:26	1			walking		47						
8	11:33	2	2		adults with kids on bikes	2	48						
9	11:40	2			running		49						
10	11:42		1		teen on bike	1	50						
11	11:45	1		2	walking w/ double stroller	2	51						
12	11:45	1			walking		52						
13	11:49	3		1	walking, 1 in wheelchair		53						
14	11:51	1		1	walking, scooter	1	54						
15	11:55	1			running		55						
16	11:57			1	teen on skateboard	1	56						
17	11:59	2		2	2 adults, 2 strollers	2	57						
18							58						
19							59						
20							60						
21							61						
22							62						
23							63						
24							64						
25							65						
26							66						
27							67						
28							68						
29							69						
30							70						
31							71						
32							72						
33							73						
34							74						
35							75						
36							76						
37							77						
38							78						
39							79						
40							80						
<b>HOURL TOTALS:</b>							20	8	8	=	36		

# Manual Counts How?

## For best results...

- 10 full hours per year per counter
- Varied days of week and time of day
- Avoid bad weather/ low volume times
- Get there early!
- Counts most important to record if you get overwhelmed
- Official US time & full hours
- Record anything else of note



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Manual Count Form

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38							78						
39							79						
40							80						

HOURLY TOTALS: 20 8 8 = 36

# Happy Counting!

Questions?

[cttrailcensus@gmail.com](mailto:cttrailcensus@gmail.com)

Or (Emergency only)

203.489.0362

