Database Code: TD023

Title:LTER Intersite Fine Litter Decomposition Experiment (LIDET), 1990 to 2002

Abstract:

The primary objective of this study is to examine the control that substrate quality and climate have on patterns of long-term decomposition and nitrogen accumulation in above- and below-ground fine litter. Of particular interest will be to examine the degree these two factors control the formation of stable organic matter and nitrogen after extensive decay.

Keywords: Carbon;Decay rates;Decomposition;Fine roots;Leaf litter;Litterfall;Nitrogen;Phosphorus;Roots;Wood;Inorganic nutrients;Organic matter;

Date data commenced:1990-01-31

Date data terminated:2007-06-12

Principal Investigator: Mark E. Harmon

List of Entities:

1. Initial Mass of Litter

2. NIR Nitrogen, Lignin, and Cellulose Contents

3. Wet Chemical Data of Litter Subsamples

4. Monthly Temperature and Precipitation at Sites

5. Descriptions of the Soils for the Study Sites

6. Site Descriptions, Elevations, Climate, and Vegetation

7. Moisture Correction Factors

8. Workfile of long_term intersite decomposition experiment

9. Mass loss datafile

10. Ash Content

11. Nutrient Concentrations of Leaves, Roots, and Dowels

12. ANGE Root Initial Ash Correction

13. Nitrogen concentration data

---

1. Initial Mass of Litter

Attribute List:

STCODE	N	N	char(5)	enum			
FORMAT	N	N	numeric(2,0)	range	1.0000	1.0000	number
SITE	N	N	char(9)	place			
REP	N	N	char(1)	enum	0.0000	4.0000	
DURATION	N	N	numeric(2,0)	range	0.0000	20.0000	years
SPECIES	N	N	char(6)	taxa			
TYPE	N	N	char(1)	enum			
NIR_NUM	N	N	numeric(5,0)	range	1.0000	80624.0000	number
MESH	N	Y	numeric(3,1)	range	0.0000	7.0000	mm
FILL_DATE	N	Y	datetime	range	1/31/1990	7/29/1994	YYYY-MM-DD

Attribute			Type	Constraint	Min	Max	Unit
					12:00:00 AM	12:00:00 AM	
IADW	N	N	numeric(7,3)	range	0.0080	65.6500	g
IODW	N	N	numeric(7,3)	range	0.0080	60.7900	g

2. NIR Nitrogen, Lignin, and Cellulose Contents

Attribute List:

Attribute			Type	Constraint	Min	Max	Unit
STCODE	N	N	char(5)	enum			
FORMAT	N	N	numeric(2,0)	range	2.0000	2.0000	number
SITE	N	N	char(9)	place			
REP	N	N	char(1)	enum	0.0000	4.0000	
DURATION	N	N	numeric(2,0)	range	0.0000	20.0000	years
SPECIES	N	N	char(6)	taxa			
TYPE	N	N	char(1)	enum			
NIR_NUM	N	N	numeric(5,0)	range	1.0000	99999.0000	number
DUP	N	Y	char(1)	enum	1.0000	4.0000	
ANALY_DATE	N	Y	datetime	range	10/8/1999 12:00:00 AM	1/13/2003 12:00:00 AM	YYYY-MM-DD
NIR_N	N	Y	numeric(6,3)	range	0.0000	5.5000	%
NIR_PAFNN	N	Y	numeric(6,3)	range	0.0000	100.0000	%
NIR_NPE	N	Y	numeric(6,3)	range	0.0000	50.0000	%
NIR_LIGNIN	N	Y	numeric(7,3)	range	0.0000	100.0000	%
NIR_WSCARB	N	Y	numeric(6,3)	range	0.0000	8.0000	%
NIR_TANNIN	N	Y	numeric(5,3)	range	0.0000	7.0000	%
LAB	N	N	char(3)	enum			
COMMENT	N	Y	char(3)	enum			

3. Wet Chemical Data of Litter Subsamples

Attribute List:

Attribute			Type	Constraint	Min	Max	Unit
STCODE	N	N	char(5)	enum			
FORMAT	N	N	numeric(2,0)	range	3.0000	3.0000	number
SPECIES	N	N	char(6)	taxa			
BATCH	N	Y	char(1)	enum			
TYPE1	Y	N	char(1)	enum			
NIR_NUM	Y	N	numeric(5,0)	range	1.0000	99999.0000	number
DUP	Y	N	char(1)	enum			
SAMPLEDATE	Y	Y	datetime	range	12/18/1999 12:00:00 AM	9/15/2004 12:00:00 AM	YYYY-MM-DD hh:mm:ss

DURATION	N	Y	numeric(2,0)	range	0.0000	20.0000	years	
REP	N	N	char(1)	enum				
SITE	N	N	char(9)	place				
ASH	N	Y	numeric(6,2)	range	0.1000	95.0000	%	
NPE	N	Y	numeric(6,2)	range	0.0100	39.5300	%	
WS	N	Y	numeric(6,2)	range	1.0000	61.4000	%	
ACIDSOL	N	Y	numeric(6,2)	range	10.0000	95.7300	%	
LIGNIN	N	Y	numeric(6,2)	range	-11.0000	96.0000	%	
TANNIN	N	Y	numeric(6,2)	range	0.0000	21.0000	%	
WSCARB	N	Y	numeric(6,2)	range	0.1000	50.0000	%	
ASCARB	N	Y	numeric(6,2)	range	0.1000	90.0000	%	
CARBON	N	Y	numeric(6,2)	range	3.5000	55.7000	%	
NITROGEN	N	Y	numeric(6,2)	range	0.0500	4.0000	%	
LAB	N	N	char(3)	enum				

4. Monthly Temperature and Precipitation at Sites

Attribute List:

STCODE	N	N	char(5)	enum			
FORMAT	N	N	numeric(2,0)	range	4.0000	4.0000	number
SITE	Y	N	char(9)	place			
MEAS_MONTH	Y	N	char(2)	enum			
STARTYR	Y	N	numeric(4,0)	range	1951.0000	1991.0000	YYYY
ENDYR	N	N	numeric(4,0)	range	1978.0000	1991.0000	YYYY
MEANTEMP	N	Y	numeric(5,1)	range	-24.9000	28.4000	deg c
MINTEMP	N	Y	numeric(5,1)	range	-29.8000	25.3000	deg c
MAXTEMP	N	Y	numeric(5,1)	range	-19.9000	35.7000	deg c
PRECIP_TM	N	Y	numeric(4,0)	range	0.0000	565.0000	mm

5. Descriptions of the Soils for the Study Sites

Attribute List:

STCODE	N	N	char(5)	enum		
FORMAT	N	N	numeric(2,0)	range		number
SITE	N	N	char(9)	place		
REP	N	N	char(1)	enum		

6. Site Descriptions, Elevations, Climate, and Vegetation

Attribute List:

STCODE	N	N	char(5)	enum			
FORMAT	N	N	numeric(2,0)	range	6.0000	6.0000	number
SITE	Y	N	char(9)	place			
SITENAME	N	N	char(50)	freetext			
LOCATION	N	N	char(25)	place			
LATDEG	N	N	numeric(2,0)	range	0.0000	68.0000	degrees lat-lon
LATMIN	N	N	numeric(2,0)	range	0.0000	57.0000	minutes
LONGDEG	N	N	numeric(3,0)	range	0.0000	149.0000	degrees lat-lon
LONGMIN	N	N	numeric(2,0)	range	0.0000	53.0000	minutes
ELEV	N	Y	numeric(4,0)	range	0.0000	3650.0000	m
TEMP	N	N	numeric(5,1)	range	-7.0000	26.3000	deg c
PRECIP	N	N	numeric(4,0)	range	0.0000	4100.0000	mm
AET	N	Y	numeric(4,0)	range	0.0000	1699.0000	mm
PET	N	Y	numeric(4,0)	range	0.0000	1860.0000	mm
BIOME	N	N	char(5)	enum			
HLZ	N	N	char(4)	enum			
VEG	N	Y	varchar(60)	freetext			

7. Moisture Correction Factors

Attribute List:

STCODE	N	N	char(5)	enum			
FORMAT	N	N	numeric(2,0)	range	7.0000	7.0000	number
SPECIES	N	N	char(6)	taxa			
TYPE	N	N	char(1)	enum			
FILL_DATE	N	Y	datetime	range	1/31/1990 12:00:00 AM	11/21/1991 12:00:00 AM	YYYY-MM-DD
MCF	N	N	numeric(5,3)	range	0.5000	0.9770	number

8. Workfile of long_term intersite decomposition experiment

Attribute List:

STCODE	N	N	char(5)	enum			
FORMAT	N	N	numeric(2,0)	range	8.0000	8.0000	number
SITE	Y	N	char(9)	place			
REP	Y	N	char(1)	enum	0.0000	4.0000	
DURATION	Y	N	numeric(2,0)	range	0.0000	20.0000	years
SPECIES	Y	N	char(6)	taxa			
TYPE	Y	N	char(1)	enum			

TAG_NUM	N	N	numeric(5,0)	range	1.0000	99999.0000	number
NUMBER	N	N	numeric(5,0)	range	1.0000	99999.0000	number
NIR_NUM	Y	Y	numeric(5,0)	range	1.0000	99999.0000	number
DATEOUT	N	Y	datetime	range	8/23/1990 12:00:00 AM	8/21/1995 12:00:00 AM	YYYY-MM-DD
DATEIN	N	Y	datetime	range	1/8/1991 12:00:00 AM	10/18/2001 12:00:00 AM	YYYY-MM-DD
STRR	N	Y	char(4)	freetext			
WHERE_GO	N	Y	char(8)	freetext			
ID_NR	N	Y	numeric(5,0)	range	1.0000	20000.0000	number
TYPE1	N	Y	char(1)	enum			
COMMENT	N	Y	char(3)	enum			

9. Mass loss datafile

Attribute List:

STCODE	N	N	char(5)	enum			
FORMAT	N	N	numeric(2,0)	range	9.0000	9.0000	number
SITE	Y	N	char(9)	place			
REP	Y	N	char(1)	enum			
DURATION	Y	N	numeric(2,0)	range	0.0000	20.0000	years
SPECIES	Y	N	char(6)	taxa			
TYPE	Y	N	char(1)	enum			
NIR_NUM	Y	N	numeric(5,0)	range	1.0000	80724.0000	number
MESH	N	Y	numeric(3,1)	range	0.1000	7.0000	mm
DATEOUT	N	N	datetime	range	8/23/1990 12:00:00 AM	8/21/1995 12:00:00 AM	YYYY-MM-DD
IADW	N	N	numeric(7,3)	range	3.9900	65.6500	g
IODW	N	N	numeric(7,3)	range	3.8100	60.7900	g
DATEIN	N	N	datetime	range	1/8/1991 12:00:00 AM	10/18/2001 12:00:00 AM	YYYY-MM-DD
FWW	N	Y	numeric(7,3)	range	0.0000	121.0400	g
FOW	N	N	numeric(7,3)	range	0.1000	76.6100	g
LENGTH	N	Y	numeric(6,2)	range	0.0000	60.7000	cm
IADW1	N	Y	numeric(7,3)	range	0.0000	55.5330	g
IODW1	N	Y	numeric(7,3)	range	0.0000	51.4150	g
IASH	N	Y	numeric(7,3)	range	0.0000	74.1100	%
FASH	N	Y	numeric(7,3)	range	0.0000	100.0000	%

IAFW	N	Y	numeric(7,3)	range	0.0000	50.6590	g
FAFW	N	Y	numeric(7,3)	range	0.0000	47.8590	g
PRM	N	Y	numeric(7,3)	range	0.3200	1027.2300	%
PAFRM	N	Y	numeric(7,3)	range	0.0000	119.4310	%
KDW	N	Y	numeric(7,3)	range	-15.5270	1.2370	number
KAFW	N	Y	numeric(7,3)	range	-15.5440	0.5140	number
TYPE1	N	Y	char(1)	enum			
TIMEOUT	N	Y	numeric(5,2)	range	0.2300	10.2200	years
COMMENT	N	Y	char(3)	enum			
FLAG	N	Y	char(1)	enum			

10. Ash Content

Attribute List:

STCODE	N	N	char(5)	enum			
FORMAT	N	N	numeric(2,0)	range	10.0000	10.0000	number
SITE	N	Y	char(9)	place			
REP	N	N	char(1)	enum	0.0000	4.0000	
DURATION	N	N	numeric(2,0)	range	0.0000	20.0000	years
SPECIES	N	N	char(6)	taxa			
TYPE	N	N	char(1)	enum			
NIR_NUM	N	N	numeric(5,0)	range	0.0000	99585.0000	number
CRWT	N	Y	numeric(7,4)	range	6.0000	25.5500	g
CRSWT	N	Y	numeric(7,4)	range	0.0000	27.0000	g
CRASH	N	Y	numeric(7,4)	range	0.0000	26.0000	g
ASH	N	Y	numeric(6,2)	range	0.0000	100.0000	%
ASHFREE	N	N	numeric(6,4)	range	0.0000	1.0000	number
EST	N	Y	char(1)	enum			
ASH_LAB	N	Y	char(3)	enum			
NIR_ASH	N	Y	numeric(6,2)	range	0.0000	100.0000	%
NIR_ASHFRE	N	N	numeric(6,4)	range	0.0000	1.0000	number
NIR_EST	N	Y	char(1)	enum			
NIR_LAB	N	Y	char(3)	enum			
COMMENT	N	Y	char(3)	enum			

11. Nutrient Concentrations of Leaves, Roots, and Dowels

Attribute List:

STCODE	N	N	char(5)	enum			
FORMAT	N	N	numeric(2,0)	range	11.0000	11.0000	number
SITE	N	N	char(9)	place			
REP	N	N	char(1)	enum			
DURATION	N	N	numeric(2,0)	range	0.0000	20.0000	years
SPECIES	N	N	char(6)	taxa			
TYPE	N	N	char(1)	enum			
NIR_NUM	N	N	numeric(5,0)	range	0.0000	99999.0000	number
STARTDATE	N	Y	datetime	range	8/10/1992 12:00:00 AM	6/17/2007 12:00:00 AM	YYYY-MM-DD
N	N	Y	numeric(6,2)	range	0.1000	2.2600	%
AL	N	Y	numeric(7,1)	range	0.0000	31420.0000	ppm
B	N	Y	numeric(6,1)	range	0.3000	372.2000	ppm
CA	N	Y	numeric(8,1)	range	44.0000	167092.0000	ppm
CU	N	Y	numeric(6,1)	range	0.1000	428.0000	ppm
FE	N	Y	numeric(7,1)	range	14.5000	11810.0000	ppm
K	N	Y	numeric(8,0)	range	22.0000	14233.0000	ppm
MG	N	Y	numeric(7,1)	range	3.3000	9400.0000	ppm
MN	N	Y	numeric(6,1)	range	0.5000	2343.2200	ppm
P	N	Y	numeric(6,1)	range	0.0000	1600.0000	ppm
S	N	Y	numeric(6,0)	range	14.0000	20000.0000	ppm
ZN	N	Y	numeric(8,1)	range	0.4000	439.0000	ppm
NA	N	Y	numeric(8,1)	range	8.0000	43010.0000	ppm
LAB	N	N	char(3)	enum			

12. ANGE Root Initial Ash Correction

Attribute List:

STCODE	N	N	char(5)	enum			
FORMAT	N	N	numeric(2,0)	range	12.0000	12.0000	number
SITE	Y	N	char(9)	place			
REP	Y	N	char(1)	enum			
DURATION	Y	N	numeric(2,0)	range	0.0000	20.0000	years
SPECIES	Y	N	char(6)	taxa			
TYPE	Y	N	char(1)	enum			
NIR_NUM	Y	N	numeric(5,0)	range	40101.0000	48703.0000	number
IODW	N	N	numeric(7,3)	range	3.8100	9.3320	g

FOW	N	N	numeric(7,3)	range	0.0500	7.9800	g
IASH	N	N	numeric(7,3)	range	0.2000	100.0000	%
FASH	N	N	numeric(7,3)	range	0.6300	100.0000	%
I_ASH_MASS	N	N	numeric(7,3)	range	0.0130	6.4370	g
I_RT_MASS	N	N	numeric(7,3)	range	0.1900	8.1150	g
NEW_IASH	N	N	numeric(7,3)	range	0.0000	100.0000	%

13. Nitrogen concentration data

Attribute List:

STCODE	N	N	char(5)	enum			
FORMAT	N	N	numeric(2,0)	range	13.0000	13.0000	number
SITE	N	N	char(9)	place			
REP	N	N	char(1)	enum			
DURATION	N	N	numeric(2,0)	range	0.0000	20.0000	years
SPECIES	N	N	char(6)	taxa			
TYPE	N	N	char(1)	enum			
NIR_NUM	N	N	numeric(5,0)	range	1.0000	48704.0000	number
I_NITRO	N	N	numeric(7,3)	range	0.0000	2.4500	%
AF_I_NITRO	N	N	numeric(7,3)	range	0.0000	3.9380	%
F_NITRO	N	N	numeric(7,3)	range	0.0000	5.4400	%
AF_F_NITRO	N	N	numeric(7,3)	range	0.0000	100.0000	%
IAFW	N	N	numeric(7,3)	range	0.7460	11.3630	g
FAFW	N	N	numeric(7,3)	range	0.0250	11.4040	g
PAFRM	N	N	numeric(7,3)	range	0.4550	497.7210	%
KAFW	N	N	numeric(7,3)	range	-7.2060	1.1210	number
I_N_CONT	N	N	numeric(7,3)	range	0.0000	0.2380	%
F_N_CONT	N	N	numeric(7,3)	range	0.0000	2.8980	%
N_CONC	N	N	numeric(7,3)	range	0.0000	69.7190	number
TIMEOUT	N	N	numeric(5,2)	range	0.2300	10.2200	years
COMMENT	N	Y	char(3)	enum			

Attributes Definitions:

ACIDSOL

Acid soluble extractives

AET

The site mean actual evapotranspiration, this is for the general area and not the specific location of the litter bags.

AF_F_NITRO

Percent final ashfree nitrogen content of individual sample after incubation

AF_I_NITRO

Percent initial ashfree nitrogen content of individual sample

AL

Aluminum concentration (icap inductively coupled argon spectrophotometry)

ANALY_DATE

Date the analysis was performed

ASCARB

Percent acid soluble carbohydrates as measured by ryan et al. method.

ASH

Percent of sample that was composed of ash

ASHFREE

Proportion of sample that was ash free

B

Boron concentration (icap inductively coupled argon spectrophotometry)

BATCH

Batch number that represents whether a sample run was repeated or not.

BIOME

The biome represented by the site, based on Whittaker, 1975

CA

Calcuim concentration (icap inductively coupled argon spectrophotometry)

CARBON

Carbon content

COMMENT

Coded comments

CRASH

Weight of crucible and ash. Ashing was at 400 c for 4 hours

CRSWT

Weight of the crucible and sample

CRWT

Crucible weight prior to adding sample

CU

Copper concentration (icap inductively coupled argon spectrophotometry)

DATEIN

The date the litter bag was harvested from the field.

DATEOUT

The date the bags were placed out in the field.

DUP

Indicates if a sample measurement was repeated to check measurements.

DURATION

The length of time (number of years) the litter will remain on site before it is harvested.

ELEV

The site elevation

ENDYR

The year the record ended

EST

Indicates if a pooled sampled was used to estimate the ashfree content. all weights are blank for this condition.

F_N_CONT

Final nitrogen content ((AF_F_NITRO/100)*FAFW)

F_NITRO

Percent final nitrogen content of individual sample after incubation

FAFW

Final ash free weight (fow*fash)

FASH

Percent final ash content of individual sample after incubation

FE

Iron concentration (icap inductively coupled argon spectrophotometry)

FILL_DATE

Date the bags were filled with litter

FLAG

Flag for outliers

FORMAT

Entity number

FOW

The final oven dry weight (55 deg C) of the litter bag contents.

FWW

The final wet weight of the litter bag contents.

HLZ

The Holdridge life zone represented by the site.

I_ASH_MASS

Initial ash mass (see documentation for description of why this is needed) (fow*(fash/100) assumption: final ash mass = initial ash mass

I_N_CONT

Initial nitrogen content ((AF_I_NITRO/100)*IAFW)

I_NITRO

Percent initial nitrogen content of individual sample

I_RT_MASS

Initial root mass (iodw-initial ash mass)

IADW

The initial air dry weight of the contents of the litterbag, or dowel

IADW1

Wooden dowel variable, initial air dry weight for above or below part of dowel (applies only to type A or B)

IAFW

Initial ash free weight (iodw*iash)

IASH

Percent initial ash content

ID_NR

The database record number, it serves as an identical relation variable when updating the database.

IODW

The initial oven dry weight

IODW1

Wooden dowel variable, initial oven dry weight for above or below part of dowel (applies only to type A or B)

K

Potassium concentration (icap inductively coupled argon spectrophotometry)

KAFW

Decay rate ash free weight basis (fafw/iafw)

KDW

Decay rate dry weight basis iow/fow

LAB

Laboratory name where analysis was performed

LATDEG

The site latitude in degrees. All are north latitudes

LATMIN

The site latitude in minutes

LENGTH

The length of wooden dowels, the sum of above and below length should be 61.0 cm

LIGNIN

Lignin as measured by Ryan et al method.

LOCATION

Site location description

LONGDEG

The site longitude in degrees, all are west longitude.

LONGMIN

The site longitude in minutes

MAXTEMP

Mean monthly maximum temperture

MCF

Moisture correction factor: mcf=dry wt./wet weight

MEANTEMP

The mean monthly air temperature

MEAS_MONTH

The month value was collected. January=1 ... December=12

MESH

The mesh size of the bag. for leaves this corresponds to the top side of the bag; all the bottoms were 0.1 mm for leaves.

MG

Magnesium concentration (icap inductively coupled argon spectrophotometry)

MINTEMP

Mean minimum temperature for the month

MN

Manganese concentration (icap inductively coupled argon spectrophotometry)

N

Nitrogen concentration (micro Kjeldahl N)

N_CONC

Nitrogen concentration/proportion remaining after incubation (F_N_CONT / I_N_CONT)

NA

Sodium concentration (icap inductively coupled argon spectrophotometry)

NEW_IASH

New percent initial ash content (i_ash_mass/total initial mass)

NIR_ASH

Percent ash as predicted by near infra-red reflectance method

NIR_ASHFRE

Ashfree proportion as predicted by near infra-red reflectance method

NIR_EST

Indicates if prediction is estimated from pooled sample or other rep.

NIR_LAB

Laboratory name where nir analysis was performed

NIR_LIGNIN

Total lignin as measured by near infra-red reflectance method.

NIR_N

Total nitrogen as measured by near infra-red reflectance method.

NIR_NPE

Non-polar extractives as measured by near infra-red reflectance method.

NIR_NUM

Unique sample number

NIR_PAFNN

Percent ashfree nir nitrogen (nitrogen/ashfree proportion)

NIR_TANNIN

Tannin as measured by near infrared reflectance method

NIR_WSCARB

Water soluable sugars as measured by near infra-red reflectance method

NITROGEN

Total nitrogen as measured by kjeldahl method.

NPE

Non-polar extractives

NUMBER

Accounts for mistakes in recording of tag number

P

Phosphorus concentration (icap inductively coupled argon spectrophotometry)

PAFRM

Percent ash free remaining mass (fafw/iafw)

PET

The site potential evapotranspiration

PRECIP

The site mean annual precipitation, this is for general area not specific location of the litter bags.

PRECIP_TM

The total precipiation for the month

PRM

Percent remaining mass

REP

Replicate code

S

Sulfur concentration (icap inductively coupled argon spectrophotometry)

SAMPLEDATE

Date of sampling

SITE

Site code

SITENAME

Full description name of site

SPECIES

Litter species code

STARTDATE

Date experiment started

STARTYR

The year the record started

STCODE

Database code

STRR

The string and rep that the bag number was initially supposed to go on.

TAG_NUM

The tag number on the litter bag

TANNIN

Tannin measured against tannic acid standard using denis-folin reagent

TEMP

The site mean annual temperature, this is for general area not specific location of the litter bags.

TIMEOUT

Time in years that litter sample incubated in field

TYPE

The substrate of the litter : leaves, roots, wood

TYPE1

The substrate of the litter: leaves, roots, wood

VEG

The dominant species- veg. type where the litterbags were placed .

WHERE_GO

Where the bag actually went instead of the initially planned string

WS

Water soluble extractives

WSCARB

Percent water soluble carbohydrates as measured by ryan et al. method.

ZN

Zinc concentration (icap inductively coupled argon spectrophotometry)

Enumerated Domains:

Enumerated Domain for Attribute: REP
    1   Indicates replicate 1

2	Indicates replicate 2
3	Indicates replicate 3
4	Indicates replicate 4
P	Indicates pooled sample
I	Indicates initial sample of original material
0	Indicates unused extra sample
5	Indicates replicate 5

Enumerated Domain for Attribute: STCODE

| TD023 | FSDB Database Code TD023 |

Enumerated Domain for Attribute: TYPE

A	Above part of wooden dowels
B	Below part of wooden dowels
L	Leaves
M	Mineral soil
R	Fine roots
W	Wooden dowels

Enumerated Domain for Attribute: COMMENT

X	Bag torn with obvious sample loss
T	Bag torn with sample loss unknown
U	Tag disconnected; id questionable
F	Foreign material in sample (i.e. rocks)
M	Sample missing
D	Tag disconnected; id good
XF	Torn bag with sample loss and foreign material
TF	Torn bag sample loss unknown and foreign material
TU	Torn bag and tag disconnected
TD	Torn bag loss unknown; id good
TFU	Torn bag with foreign material tag disconnected; id questionable
TX	Torn bag with obvious sample loss
UF	Tag disconnected; id questionable plus foreign material
UT	Tag disconnected; id questionable and torn bag
UX	Tag disconnected; id questionable and torn bag with obvious sample loss
XFU	Torn bag with sample loss and foreign material plus tag disconnected
FLA	Flagged as outlier

FLA	Flagged outlier
E	Estimated length
TE	Torn mesh sample loss unknown; estimated length
XE	Torn mesh with sample loss; estimated length
SP1	Species was coded as PIEL1
SP2	Species was coded as PIEL2

Enumerated Domain for Attribute: DUP

1	First sample
2	2nd repeated sample
3	3rd repeated sample
4	4th repeated sample

Enumerated Domain for Attribute: LAB

MBL	Marine Biological Laboratory
OSU	Oregon State University
CAL	Central Analytical Lab, OSU Soil & Horticulture dept.
UMD	University of Minnesota, Duluth
UNH	University of New Hampshire
MMI	Micro-macro International, Athens, GA

Enumerated Domain for Attribute: REP

1	Indicates replicate 1
2	Indicates replicate 2
3	Indicates replicate 3
4	Indicates replicate 4
P	Indicates pooled sample
I	Indicates initial sample of original material
0	Indicates unused extra sample
5	Indicates replicate 5

Enumerated Domain for Attribute: STCODE

TD023	FSDB Database Code TD023

Enumerated Domain for Attribute: TYPE

A	Above part of wooden dowels
B	Below part of wooden dowels
L	Leaves
M	Mineral soil

R	Fine roots
W	Wooden dowels

Enumerated Domain for Attribute: BATCH
1	Sample run only once
2	Sample run is second run of the same sample

Enumerated Domain for Attribute: DUP
1	First sample
2	2nd repeated sample
3	3rd repeated sample
4	4th repeated sample

Enumerated Domain for Attribute: LAB
MBL	Marine Biological Laboratory
OSU	Oregon State University
CAL	Central Analytical Lab, OSU Soil & Horticulture dept.
UMD	University of Minnesota, Duluth
UNH	University of New Hampshire
MMI	Micro-macro International, Athens, GA

Enumerated Domain for Attribute: REP
1	Indicates replicate 1
2	Indicates replicate 2
3	Indicates replicate 3
4	Indicates replicate 4
P	Indicates pooled sample
I	Indicates initial sample of original material
0	Indicates unused extra sample
5	Indicates replicate 5

Enumerated Domain for Attribute: STCODE
TD023	FSDB Database Code TD023

Enumerated Domain for Attribute: TYPE1
A	Above part of wooden dowels
B	Below part of wooden dowels
L	Leaves
M	Mineral soil
R	Fine roots
W	Wooden dowels

G	Green Leaves
H	Brown Leaves

Enumerated Domain for Attribute: MEAS_MONTH

01	January
02	February
03	March
04	April
05	May
06	June
07	July
08	August
09	September
10	October
11	November
12	December

Enumerated Domain for Attribute: STCODE

TD023	FSDB Database Code TD023

Enumerated Domain for Attribute: REP

1	Indicates replicate 1
2	Indicates replicate 2
3	Indicates replicate 3
4	Indicates replicate 4
P	Indicates pooled sample
I	Indicates initial sample of original material
0	Indicates unused extra sample
5	Indicates replicate 5

Enumerated Domain for Attribute: STCODE

TD023	FSDB Database Code TD023

Enumerated Domain for Attribute: BIOME

BTF	Boreal-taiga forests, includes subalpine forests
CSDS	Cool semi-desert shrub
TDF	Temperate decidous forest
TEF	Temperate evergreen forest
TGS	Temperate short grass

TGT	Temperate tall grass
TRDF	Tropical dry forest
TREW	Tropical elfinwood-cloud forest
TRF	Temperate rainforest
TRRF	Tropical rainforest
TRSF	Tropical seasonal forest
TS	Temperate shrubland-chaparral
TUN	Tundra including arctic and alpine
TW	Temperate woodland
WSDS	Warm semidesert shrub

Enumerated Domain for Attribute: HLZ

AMT	Alpine moist tundra
AWT	Alpine wet tundra
BMF	Boreal moist forest
BRF	Boreal rain forest
CTDB	Cool temperate desert bush
CTRF	Cool temperate rain forest
CTS	Cool temperate steppe
CTWF	Cool temperate wet forest
LMWF	Lower montane wet forest
SAMF	Subalpine moist forest
SPDT	Subpolar dry tundra
TDF	Tropical dry forest
TMF	Tropical moist forest
TRF	Tropical rain forest
WTDB	Warm temperate desert brush
WTDF	Warm temperate dry forest
WTTW	Warm temperate thorn woodland
WTWF	Warm temperate wet forest

Enumerated Domain for Attribute: STCODE

TD023	FSDB Database Code TD023

Enumerated Domain for Attribute: STCODE

TD023	FSDB Database Code TD023

Enumerated Domain for Attribute: TYPE

A	Above part of wooden dowels
B	Below part of wooden dowels
L	Leaves
M	Mineral soil
R	Fine roots
W	Wooden dowels

Enumerated Domain for Attribute: COMMENT

X	Bag torn with obvious sample loss
T	Bag torn with sample loss unknown
U	Tag disconnected; id questionable
F	Foreign material in sample (i.e. rocks)
M	Sample missing
D	Tag disconnected; id good
XF	Torn bag with sample loss and foreign material
TF	Torn bag sample loss unknown and foreign material
TU	Torn bag and tag disconnected
TD	Torn bag loss unknown; id good
TFU	Torn bag with foreign material tag disconnected; id questionable
TX	Torn bag with obvious sample loss
UF	Tag disconnected; id questionable plus foreign material
UT	Tag disconnected; id questionable and torn bag
UX	Tag disconnected; id questionable and torn bag with obvious sample loss
XFU	Torn bag with sample loss and foreign material plus tag disconnected
FLA	Flagged as outlier
FLA	Flagged outlier
E	Estimated length
TE	Torn mesh sample loss unknown; estimated length
XE	Torn mesh with sample loss; estimated length
SP1	Species was coded as PIEL1
SP2	Species was coded as PIEL2

Enumerated Domain for Attribute: REP

1	Indicates replicate 1
2	Indicates replicate 2
3	Indicates replicate 3

4	Indicates replicate 4
P	Indicates pooled sample
I	Indicates initial sample of original material
0	Indicates unused extra sample
5	Indicates replicate 5

Enumerated Domain for Attribute: STCODE

TD023	FSDB Database Code TD023

Enumerated Domain for Attribute: TYPE

A	Above part of wooden dowels
B	Below part of wooden dowels
L	Leaves
M	Mineral soil
R	Fine roots
W	Wooden dowels

Enumerated Domain for Attribute: TYPE1

A	Above part of wooden dowels
B	Below part of wooden dowels
L	Leaves
M	Mineral soil
R	Fine roots
W	Wooden dowels
G	Green Leaves
H	Brown Leaves

Enumerated Domain for Attribute: COMMENT

X	Bag torn with obvious sample loss
T	Bag torn with sample loss unknown
U	Tag disconnected; id questionable
F	Foreign material in sample (i.e. rocks)
M	Sample missing
D	Tag disconnected; id good
XF	Torn bag with sample loss and foreign material
TF	Torn bag sample loss unknown and foreign material
TU	Torn bag and tag disconnected
TD	Torn bag loss unknown; id good

TFU	Torn bag with foreign material tag disconnected; id questionable
TX	Torn bag with obvious sample loss
UF	Tag disconnected; id questionable plus foreign material
UT	Tag disconnected; id questionable and torn bag
UX	Tag disconnected; id questionable and torn bag with obvious sample loss
XFU	Torn bag with sample loss and foreign material plus tag disconnected
FLA	Flagged as outlier
FLA	Flagged outlier
E	Estimated length
TE	Torn mesh sample loss unknown; estimated length
XE	Torn mesh with sample loss; estimated length
SP1	Species was coded as PIEL1
SP2	Species was coded as PIEL2

Enumerated Domain for Attribute: FLAG
X	Flagged as outlier

Enumerated Domain for Attribute: REP
1	Indicates replicate 1
2	Indicates replicate 2
3	Indicates replicate 3
4	Indicates replicate 4
P	Indicates pooled sample
I	Indicates initial sample of original material
0	Indicates unused extra sample
5	Indicates replicate 5

Enumerated Domain for Attribute: STCODE
TD023	FSDB Database Code TD023

Enumerated Domain for Attribute: TYPE
A	Above part of wooden dowels
B	Below part of wooden dowels
L	Leaves
M	Mineral soil
R	Fine roots
W	Wooden dowels

Enumerated Domain for Attribute: TYPE1

A	Above part of wooden dowels
B	Below part of wooden dowels
L	Leaves
M	Mineral soil
R	Fine roots
W	Wooden dowels
G	Green Leaves
H	Brown Leaves

Enumerated Domain for Attribute: ASH_LAB

OSU	Oregon State University

Enumerated Domain for Attribute: COMMENT

X	Bag torn with obvious sample loss
T	Bag torn with sample loss unknown
U	Tag disconnected; id questionable
F	Foreign material in sample (i.e. rocks)
M	Sample missing
D	Tag disconnected; id good
XF	Torn bag with sample loss and foreign material
TF	Torn bag sample loss unknown and foreign material
TU	Torn bag and tag disconnected
TD	Torn bag loss unknown; id good
TFU	Torn bag with foreign material tag disconnected; id questionable
TX	Torn bag with obvious sample loss
UF	Tag disconnected; id questionable plus foreign material
UT	Tag disconnected; id questionable and torn bag
UX	Tag disconnected; id questionable and torn bag with obvious sample loss
XFU	Torn bag with sample loss and foreign material plus tag disconnected
FLA	Flagged as outlier
FLA	Flagged outlier
E	Estimated length
TE	Torn mesh sample loss unknown; estimated length
XE	Torn mesh with sample loss; estimated length
SP1	Species was coded as PIEL1
SP2	Species was coded as PIEL2

Enumerated Domain for Attribute: EST

E   Indicates a pooled sample was used to estimate the ashfree proportion.

BLANK   Indicates actual sample was ashed

?   Indicates questional sample, may have been lost

P   Indicates pooled sample

Enumerated Domain for Attribute: NIR_EST

E   Indicates a pooled sample was used to estimate an ash free portion

BLANK   Indicates actual sample was ashed

Enumerated Domain for Attribute: NIR_LAB

OSU   Oregon state university nir lab

Enumerated Domain for Attribute: REP

1   Indicates replicate 1

2   Indicates replicate 2

3   Indicates replicate 3

4   Indicates replicate 4

P   Indicates pooled sample

I   Indicates initial sample of original material

0   Indicates unused extra sample

5   Indicates replicate 5

Enumerated Domain for Attribute: STCODE

TD023   FSDB Database Code TD023

Enumerated Domain for Attribute: TYPE

A   Above part of wooden dowels

B   Below part of wooden dowels

L   Leaves

M   Mineral soil

R   Fine roots

W   Wooden dowels

Enumerated Domain for Attribute: LAB

MBL   Marine Biological Laboratory

OSU   Oregon State University

CAL   Central Analytical Lab, OSU Soil & Horticulture dept.

UMD   University of Minnesota, Duluth

UNH   University of New Hampshire

MMI   Micro-macro International, Athens, GA

Enumerated Domain for Attribute: REP

1	Indicates replicate 1
2	Indicates replicate 2
3	Indicates replicate 3
4	Indicates replicate 4
P	Indicates pooled sample
I	Indicates initial sample of original material
0	Indicates unused extra sample
5	Indicates replicate 5

Enumerated Domain for Attribute: STCODE

TD023	FSDB Database Code TD023

Enumerated Domain for Attribute: TYPE

A	Above part of wooden dowels
B	Below part of wooden dowels
L	Leaves
M	Mineral soil
R	Fine roots
W	Wooden dowels

Enumerated Domain for Attribute: REP

1	Indicates replicate 1
2	Indicates replicate 2
3	Indicates replicate 3
4	Indicates replicate 4
P	Indicates pooled sample
I	Indicates initial sample of original material
0	Indicates unused extra sample
5	Indicates replicate 5

Enumerated Domain for Attribute: STCODE

TD023	FSDB Database Code TD023

Enumerated Domain for Attribute: TYPE

A	Above part of wooden dowels
B	Below part of wooden dowels
L	Leaves
M	Mineral soil
R	Fine roots

W	Wooden dowels

Enumerated Domain for Attribute: COMMENT

X	Bag torn with obvious sample loss
T	Bag torn with sample loss unknown
U	Tag disconnected; id questionable
F	Foreign material in sample (i.e. rocks)
M	Sample missing
D	Tag disconnected; id good
XF	Torn bag with sample loss and foreign material
TF	Torn bag sample loss unknown and foreign material
TU	Torn bag and tag disconnected
TD	Torn bag loss unknown; id good
TFU	Torn bag with foreign material tag disconnected; id questionable
TX	Torn bag with obvious sample loss
UF	Tag disconnected; id questionable plus foreign material
UT	Tag disconnected; id questionable and torn bag
UX	Tag disconnected; id questionable and torn bag with obvious sample loss
XFU	Torn bag with sample loss and foreign material plus tag disconnected
FLA	Flagged as outlier
FLA	Flagged outlier
E	Estimated length
TE	Torn mesh sample loss unknown; estimated length
XE	Torn mesh with sample loss; estimated length
SP1	Species was coded as PIEL1
SP2	Species was coded as PIEL2

Enumerated Domain for Attribute: REP

1	Indicates replicate 1
2	Indicates replicate 2
3	Indicates replicate 3
4	Indicates replicate 4
P	Indicates pooled sample
I	Indicates initial sample of original material
0	Indicates unused extra sample
5	Indicates replicate 5

Enumerated Domain for Attribute: STCODE
  TD023   FSDB Database Code TD023

Enumerated Domain for Attribute: TYPE
  A   Above part of wooden dowels

  B   Below part of wooden dowels

  L   Leaves

  M   Mineral soil

  R   Fine roots

  W   Wooden dowels