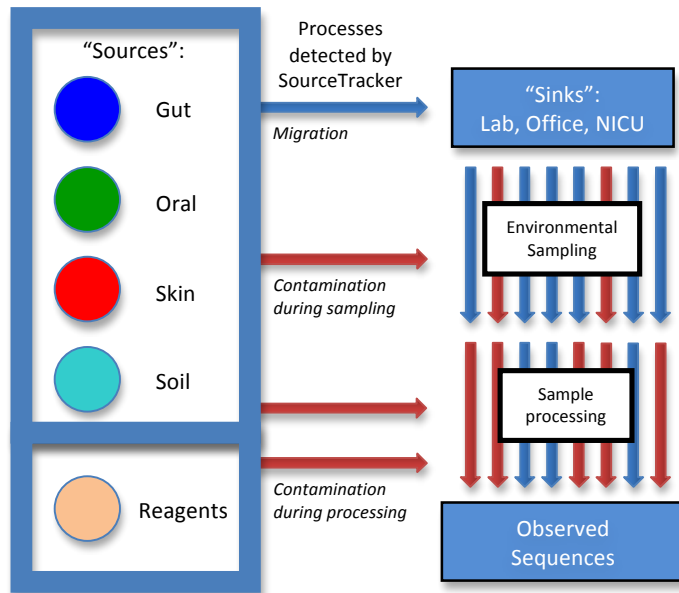


Bayesian community-wide culture-independent microbial source tracking

Dan Knights, Justin Kuczynski, Emily S Charlson, Jesse Zaneveld, Michael C Mozer, Ronald G Collman, Frederic D Bushman, Rob Knight & Scott T Kelley

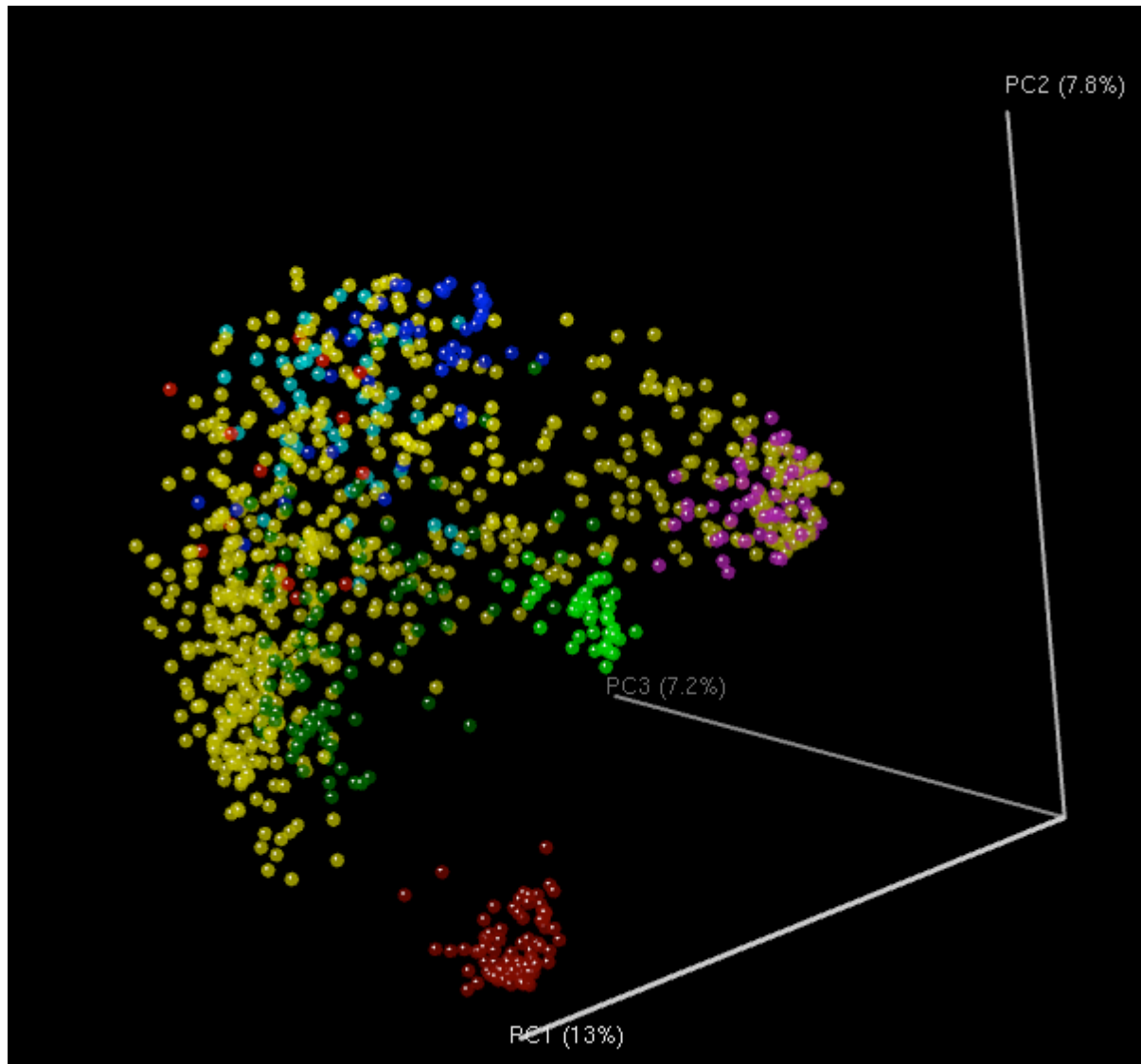
Supplementary Figure 1	Schematic of processes detected by SourceTracker.
Supplementary Figure 2	Principal coordinates analysis of unweighted UniFrac distances.
Supplementary Figure 3	Heatmap of the 454 OTUs present in at least 20 samples.
Supplementary Figure 4	Estimated composition of all source samples using SourceTracker.
Supplementary Figure 5	Estimated composition of all sink samples using SourceTracker.
Supplementary Figure 6	ROC curves for detecting simulated contamination using SourceTracker.
Supplementary Figure 7	Simulation algorithm for partially overlapping source environments.
Supplementary Table 1	DNA barcodes, primers, and descriptions for “Sink” data samples.
Supplementary Table 2	Sample identifiers and descriptions for “Source” data samples.

Supplementary Figure 1. Schematic of processes detected by SourceTracker.



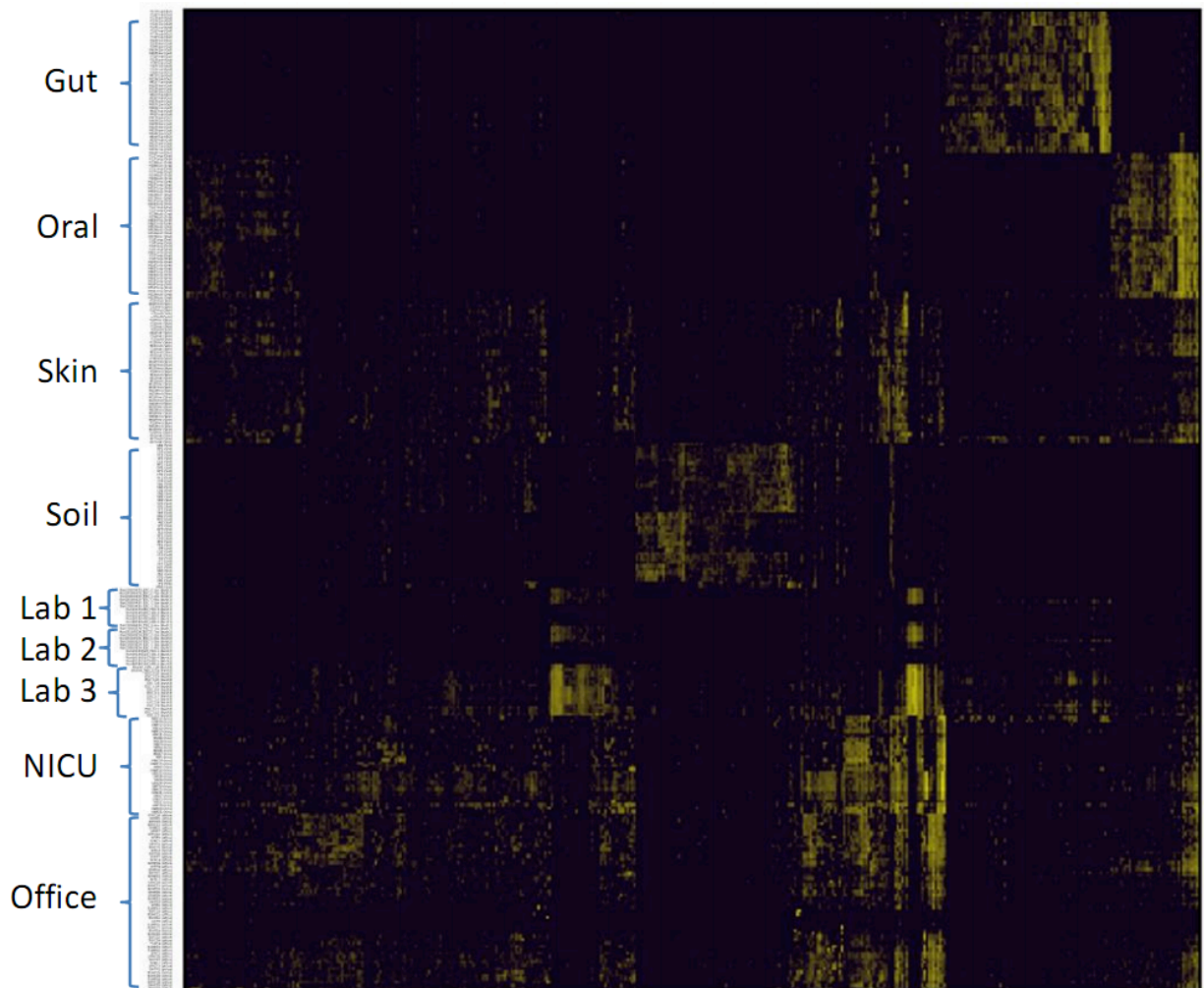
SourceTracker allows tracking of source environments that have contributed organisms to sink samples. Transfer of microbes may occur in nature prior to sampling (migration), or during the sampling and processing steps (contamination). To demonstrate the utility of SourceTracker, we addressed the question of which sources may commonly contribute to the microbial communities on the surfaces of indoor environments including laboratories, offices, and NICUs. Several of the sink environments characterized (PCR water, laboratory benches) are themselves potential sources of contamination, and they contribute to the library of potential sources that we envision tracking with SourceTracker in future environmental samples.

Supplementary Figure 2. Principal coordinates analysis of unweighted UniFrac distances.



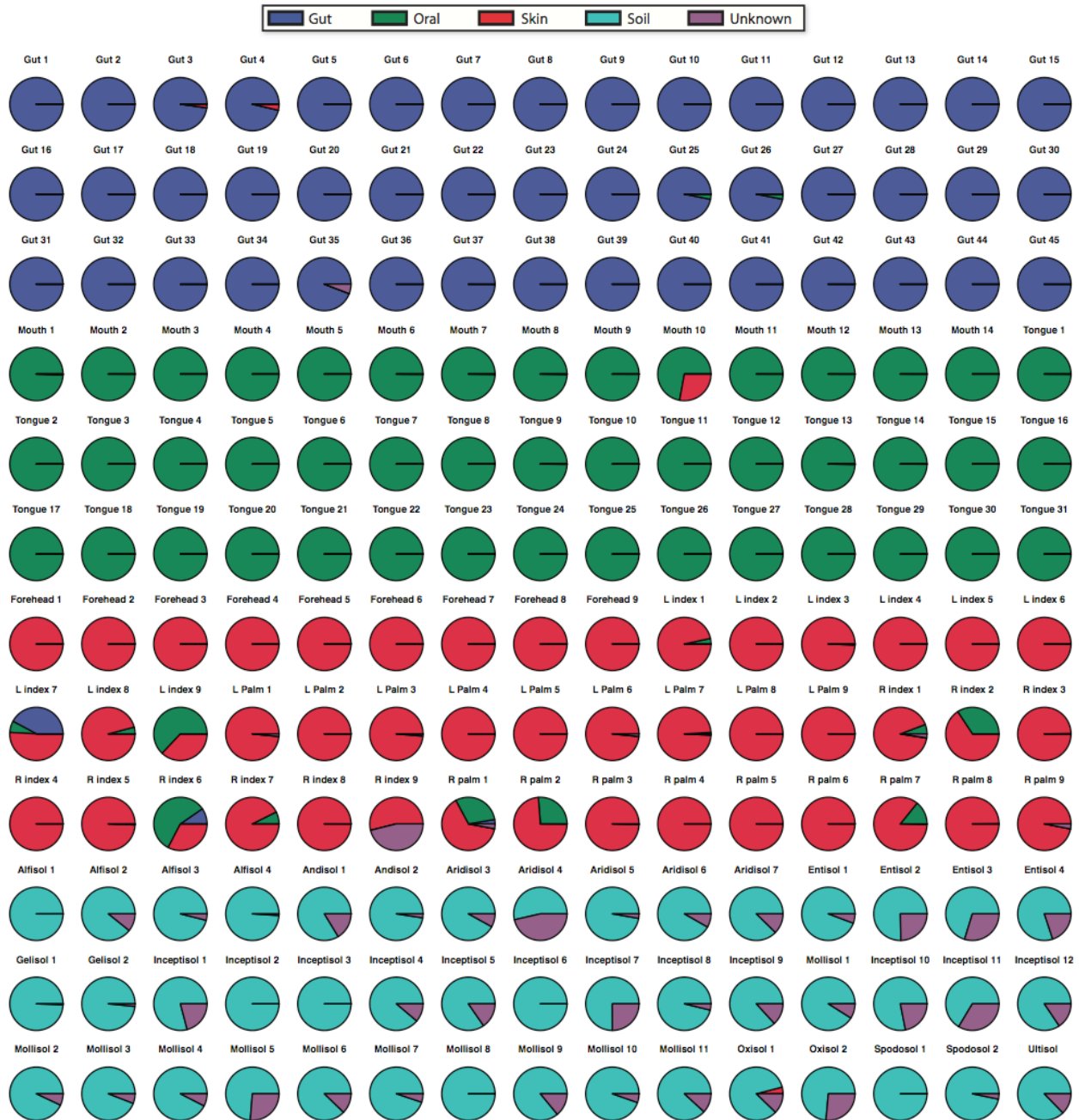
Contamination samples: dark green; Soil samples: dark red (bottom of figure); Whole body samples as follows: External ear canal: dark blue; Gut: light green (center of figure); Hair: red (center left); Nostril: light blue; Oral: purple; Skin: yellow. The first 3 principal coordinates are shown, rotated to display most clearly the variation among groups in 2 dimensions.

Supplementary Figure 3. Heatmap of the 454 OTUs present in at least 20 samples.



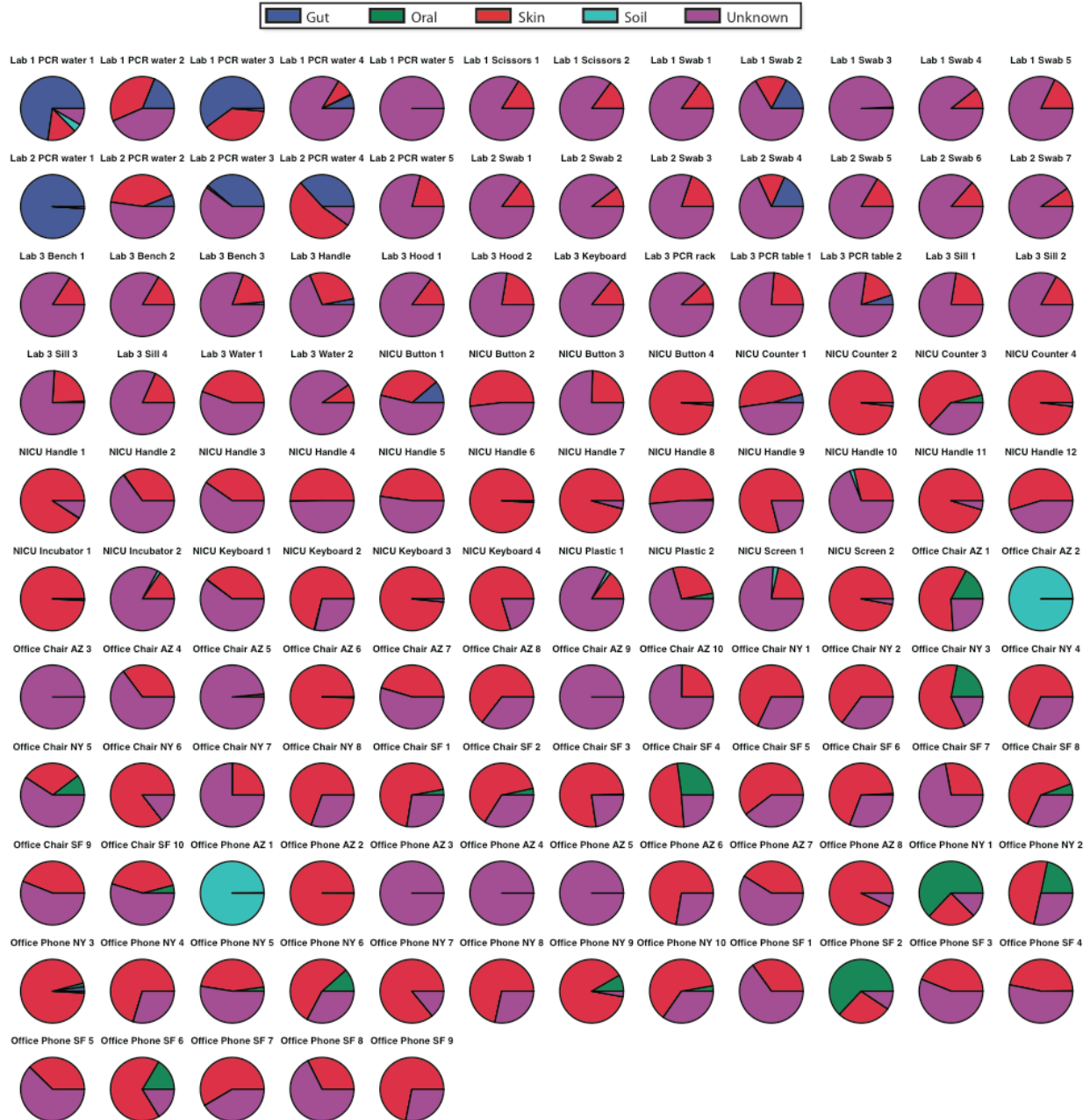
Heatmap values represent log relative abundance. Hierarchical clustering (Unweighted Pair Group Method with Arithmetic Mean) was performed on the columns (OTUs), and again on the rows within each environment.

Supplementary Figure 4. Estimated composition of all source samples using SourceTracker.



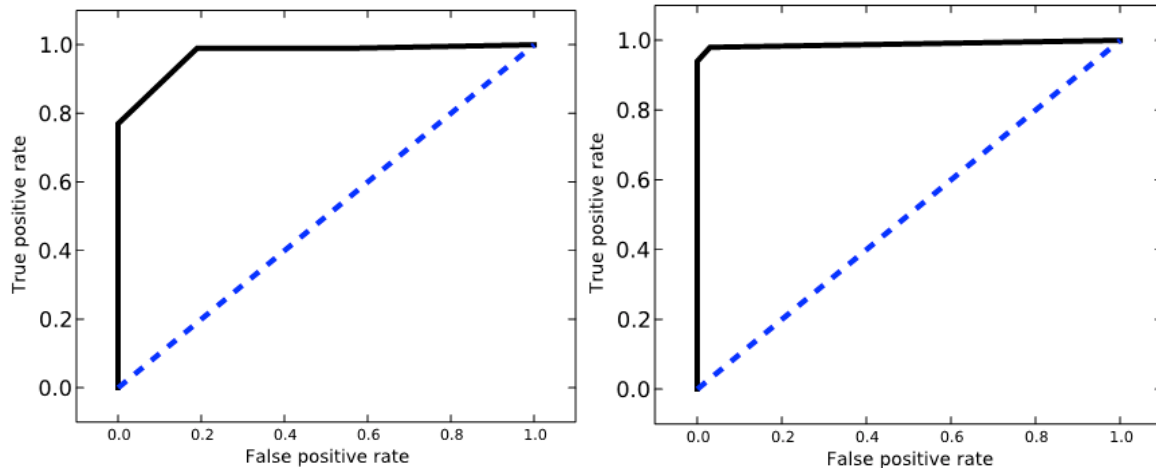
Source proportion estimates were predicted using a leave-one-out approach. For a given sample, that sample was removed from the training process (estimation of the distributions over taxa in each source environment), and then treated as a single sink sample for estimation. The first three rows are Gut, the next three Oral, the next three Skin, and the last three Soil. The higher prevalence of Unknown bacteria in the Soil samples is an indication that the soil training set has less of a “core” microbiome than the other source training sets.

Supplementary Figure 5. Estimated composition of all sink samples using SourceTracker.



Source environment proportions were estimated using SourceTracker and 45 training samples from each source environment (**Supplementary Table 2**). The pie charts show the mean proportions for 100 draws from Gibbs sampling.

Supplementary Figure 6. ROC curves for detecting simulated contamination using SourceTracker.



(a) 1% contamination, area under curve (AOC) is 0.971; (b) 5% contamination, AOC is 0.989.

Supplementary Figure 7. Simulation algorithm for partially overlapping source environments.

1. For concentration parameters $a \in 10^{\{3.5, 3., 2.5, 2., 1.5, 1., 0.5, 0., -0.5\}}$:
 - a. Draw multinomials $P, Q \sim \text{Dirichlet}(a)$.
 - i. Remove any taxa with zero density in both P and Q , replace with taxon densities from a new draw from $\text{Dirichlet}(a)$. Repeat until all 100 taxa have some density in P, Q or both.
 - b. Draw 100 training data samples with 1,000 sequences each from each source distribution $p_{\text{SOURCE}} \sim P, q_{\text{SOURCE}} \sim Q$.
 - c. For $i = 1..100$:
 - i. Generate random mixing proportion $m \sim \text{Uniform}(0,1)$.
 - ii. Draw 1 community sample each, $p_{\text{SINK}} \sim P, q_{\text{SINK}} \sim Q$, with $m \times 1,000, (1-m) \times 1,000$ sequences, respectively.
 - iii. Set the sink sample abundances to $p_{\text{SINK}} + q_{\text{SINK}}$
 - iv. Estimate the source proportions in this sink sample using SourceTracker, naïve Bayes, and the randomForest R package¹, with the synthetic training data from step (1b) above.
 - d. Collect the coefficients of determination (R^2) of the predictions of all three models for the 100 synthetic sink samples
 - e. Calculate the Jensen-Shannon divergence of P, Q
2. Include an additional value of $R^2 = 0$ for each proportion estimation method at Jensen-Shannon divergence = 0, where disambiguation is impossible, and empirical R^2 values are sometimes negative.

Supplementary Table 1. DNA barcodes, primers, and descriptions for “Sink” data samples.

Sample ID	Barcode Sequence	Linker Primer Sequence	Environment	Description
Run20100430_ESC_C-1ss	CGAACGTT	CTGCTGCCTYCCGTA	Lab 1	Swab 4
Run20100430_ESC_C-2ss	CGAAGCTT	CTGCTGCCTYCCGTA	Lab 1	Swab 5
Run20100430_ESC_C-3ss	CGCGAATT	CTGCTGCCTYCCGTA	Lab 1	Swab 3
Run20100430_ESC_C-4ss	CGCGTAAT	CTGCTGCCTYCCGTA	Lab 1	Swab 1
Run20100430_ESC_C-5ss	CGGCAATT	CTGCTGCCTYCCGTA	Lab 1	Swab 2
Run20100430_ESC_C-6as	CGGCATAT	CTGCTGCCTYCCGTA	Lab 1	Scissors 2
Run20100430_ESC_C-7as	CGGCTAAT	CTGCTGCCTYCCGTA	Lab 1	Scissors 1
Run20100430_H2O-1	CGGCTATA	CTGCTGCCTYCCGTA	Lab 1	PCR water 1
Run20100430_H2O-2	ATGGTACC	CTGCTGCCTYCCGTA	Lab 1	PCR water 2
Run20100430_H2O-3	AATTCCGG	CTGCTGCCTYCCGTA	Lab 1	PCR water 3
Run20100430_H2O-4	TCGTCAAG	CTGCTGCCTYCCGTA	Lab 1	PCR water 4
Run20100430_H2O-5	CCGGATAT	CTGCTGCCTYCCGTA	Lab 1	PCR water 5
Run20100524_ESC_C-1ss	CGAACGTT	CTGCTGCCTYCCGTA	Lab 2	Swab 7
Run20100524_ESC_C-2ss	CGAAGCTT	CTGCTGCCTYCCGTA	Lab 2	Swab 1
Run20100524_ESC_C-3ss	CGCGAATT	CTGCTGCCTYCCGTA	Lab 2	Swab 2
Run20100524_ESC_C-4ss	CGCGTAAT	CTGCTGCCTYCCGTA	Lab 2	Swab 3
Run20100524_ESC_C-5ss	CGGCAATT	CTGCTGCCTYCCGTA	Lab 2	Swab 4
Run20100524_ESC_C-6as	CGGCATAT	CTGCTGCCTYCCGTA	Lab 2	Swab 6
Run20100524_ESC_C-7as	CGGCTAAT	CTGCTGCCTYCCGTA	Lab 2	Swab 5
Run20100524_H2O-1	CGGCTATA	CTGCTGCCTYCCGTA	Lab 2	PCR water 1
Run20100524_H2O-2	ATGGTACC	CTGCTGCCTYCCGTA	Lab 2	PCR water 2
Run20100524_H2O-3	AATTCCGG	CTGCTGCCTYCCGTA	Lab 2	PCR water 3
Run20100524_H2O-4	TCGTCAAG	CTGCTGCCTYCCGTA	Lab 2	PCR water 4
Run20100524_H2O-5	CCGGATAT	CTGCTGCCTYCCGTA	Lab 2	PCR water 5
Bission_H2O_1_JH	CTACGATG	CTGCTGCCTYCCGTA	Lab 3	Water 1
Bission_H2O_2_CA	ATCCGGTA	CTGCTGCCTYCCGTA	Lab 3	Water 2
ESC_3.0	TATACCGG	CTGCTGCCTYCCGTA	Lab 3	Hood 1
ESC_3.1	TACCTAGG	CTGCTGCCTYCCGTA	Lab 3	Sill 2
ESC_3.10	GTACCTAG	CTGCTGCCTYCCGTA	Lab 3	Bench 1
ESC_3.11	GTACCATG	CTGCTGCCTYCCGTA	Lab 3	Sill 1
ESC_3.12	GCTTAACG	CTGCTGCCTYCCGTA	Lab 3	Handle
ESC_3.13	GCTAATCG	CTGCTGCCTYCCGTA	Lab 3	Hood 2
ESC_3.14	GCATTACG	CTGCTGCCTYCCGTA	Lab 3	PCR table 1
ESC_3.15	GCAATTCG	CTGCTGCCTYCCGTA	Lab 3	Sill 3
ESC_3.2	TACCATGG	CTGCTGCCTYCCGTA	Lab 3	Bench 2
ESC_3.3	TAATGCCG	CTGCTGCCTYCCGTA	Lab 3	Sill 4
ESC_3.6	TAATCGCG	CTGCTGCCTYCCGTA	Lab 3	PCR rack
ESC_3.7	TAATCCGG	CTGCTGCCTYCCGTA	Lab 3	Keyboard

ESC_3.8	GTTCCAAG	CTGCTGCCTYCCGTA	Lab 3	Bench 3
ESC_3.9	GTCAACTG	CTGCTGCCTYCCGTA	Lab 3	PCR table 2
MBD10	CGTTATGTACAC	CATGCTGCCTCCCGTAGGAGT	NICU	Counter 1
MBP17	CTACTGATATCG	CATGCTGCCTCCCGTAGGAGT	NICU	Plastic 1
MBP4	CGTGACAATGTC	CATGCTGCCTCCCGTAGGAGT	NICU	Plastic 2
MBR13	CTACACAAGCAC	CATGCTGCCTCCCGTAGGAGT	NICU	Handle 2
MBT14	CTACATCTAAGC	CATGCTGCCTCCCGTAGGAGT	NICU	Screen 1
MDB6	CGTGCATTATCA	CATGCTGCCTCCCGTAGGAGT	NICU	Button 3
MDB7	CGTGTACATCAG	CATGCTGCCTCCCGTAGGAGT	NICU	Button 2
MII5	CGTGATCTCTCC	CATGCTGCCTCCCGTAGGAGT	NICU	Incubator 2
MIK12	CTAACGCAGTCA	CATGCTGCCTCCCGTAGGAGT	NICU	Keyboard 1
MIR11	CGTTTCGATAGA	CATGCTGCCTCCCGTAGGAGT	NICU	Handle 3
MIW3	CGTCGATCTCTC	CATGCTGCCTCCCGTAGGAGT	NICU	Handle 10
MPK2	CGTCAGACGGAT	CATGCTGCCTCCCGTAGGAGT	NICU	Keyboard 2
MSC8	CGTGTGATCAGG	CATGCTGCCTCCCGTAGGAGT	NICU	Handle 1
MSO9	CGTTACTAGAGC	CATGCTGCCTCCCGTAGGAGT	NICU	Counter 3
MSS1	CGTCACGACTAA	CATGCTGCCTCCCGTAGGAGT	NICU	Handle 12
MWR15	CTACGCGTCTCT	CATGCTGCCTCCCGTAGGAGT	NICU	Handle 4
MWR16	CTACTACAGGTG	CATGCTGCCTCCCGTAGGAGT	NICU	Handle 5
UBD22	CTAGTCAGCTGA	CATGCTGCCTCCCGTAGGAGT	NICU	Counter 2
UBR25	CTATCTAGCGAG	CATGCTGCCTCCCGTAGGAGT	NICU	Handle 6
UBT30	CTCCACATGAGA	CATGCTGCCTCCCGTAGGAGT	NICU	Screen 2
UDB19	CTAGAGACTCTT	CATGCTGCCTCCCGTAGGAGT	NICU	Button 1
UDB31	CTCCTACTGTCT	CATGCTGCCTCCCGTAGGAGT	NICU	Button 4
UII29	CTCATGTACAGT	CATGCTGCCTCCCGTAGGAGT	NICU	Incubator 1
UIK27	CTCAATGACTCA	CATGCTGCCTCCCGTAGGAGT	NICU	Keyboard 3
UIR24	CTATCAGTGAC	CATGCTGCCTCCCGTAGGAGT	NICU	Handle 7
UIW23	CTATAGTCGTGT	CATGCTGCCTCCCGTAGGAGT	NICU	Handle 11
UPK18	CTAGAACGCACT	CATGCTGCCTCCCGTAGGAGT	NICU	Keyboard 4
USO26	CTATGCTTGATG	CATGCTGCCTCCCGTAGGAGT	NICU	Counter 4
UWR20	CTAGCGAACATC	CATGCTGCCTCCCGTAGGAGT	NICU	Handle 8
UWR21	CTAGGTCACTAG	CATGCTGCCTCCCGTAGGAGT	NICU	Handle 9
NYFC16	TCCTAGCAGTGA	CATGCTGCCTCCCGTAGGAGT	Office	Chair NY 1
NYFC22	TCCGTCGTCTGT	CATGCTGCCTCCCGTAGGAGT	Office	Chair NY 2
NYFC4	TCCACGTCGTCT	CATGCTGCCTCCCGTAGGAGT	Office	Chair NY 3
NYFC7	TCCAGTGCGAGA	CATGCTGCCTCCCGTAGGAGT	Office	Chair NY 4
NYFP16	TCATGGTACTACT	CATGCTGCCTCCCGTAGGAGT	Office	Phone NY 4
NYFP19	TCATCGGATAT	CATGCTGCCTCCCGTAGGAGT	Office	Phone NY 6
NYFP22	TCATCTGACTGA	CATGCTGCCTCCCGTAGGAGT	Office	Phone NY 3
NYFP4	TCAGTCGACGAG	CATGCTGCCTCCCGTAGGAGT	Office	Phone NY 1
NYFP7	TCAGTGACGTAC	CATGCTGCCTCCCGTAGGAGT	Office	Phone NY 5

NYMC18	TCAGCTCAACTA	CATGCTGCCTCCCGTAGGAGT	Office	Chair NY 5
NYMC23	TCAGGACTGTGT	CATGCTGCCTCCCGTAGGAGT	Office	Chair NY 6
NYMC31	TCAGTACGAGGC	CATGCTGCCTCCCGTAGGAGT	Office	Chair NY 7
NYMC5	TCAGCCATGACA	CATGCTGCCTCCCGTAGGAGT	Office	Chair NY 8
NYMP18	TCACTATGGTCA	CATGCTGCCTCCCGTAGGAGT	Office	Phone NY 2
NYMP23	TCACTGGCAGTA	CATGCTGCCTCCCGTAGGAGT	Office	Phone NY 7
NYMP28	TCACTTCTCGCT	CATGCTGCCTCCCGTAGGAGT	Office	Phone NY 8
NYMP31	TCAGATCCGATG	CATGCTGCCTCCCGTAGGAGT	Office	Phone NY 9
NYMP5	TCACGATTAGCG	CATGCTGCCTCCCGTAGGAGT	Office	Phone NY 10
SFFC10	CGATCGAGTGTT	CATGCTGCCTCCCGTAGGAGT	Office	Chair SF 1
SFFC2	CGATAGATCTTC	CATGCTGCCTCCCGTAGGAGT	Office	Chair SF 2
SFFC23	CGATGCACCAGA	CATGCTGCCTCCCGTAGGAGT	Office	Chair SF 3
SFFC24	CGATGTCGTCOA	CATGCTGCCTCCCGTAGGAGT	Office	Chair SF 4
SFFC3	CGATATTCATCG	CATGCTGCCTCCCGTAGGAGT	Office	Chair SF 5
SFFP10	CGAGGCTCAGTA	CATGCTGCCTCCCGTAGGAGT	Office	Phone SF 5
SFFP2	CGAGAGTTACGC	CATGCTGCCTCCCGTAGGAGT	Office	Phone SF 6
SFFP23	CGAGTCTAGTTG	CATGCTGCCTCCCGTAGGAGT	Office	Phone SF 3
SFFP24	CGAGTTGTAGCG	CATGCTGCCTCCCGTAGGAGT	Office	Phone SF 4
SFFP3	CGAGCAGCACAT	CATGCTGCCTCCCGTAGGAGT	Office	Phone SF 1
SFMC16	CGACAGCTGACA	CATGCTGCCTCCCGTAGGAGT	Office	Chair SF 6
SFMC28	CGACATGTATT	CATGCTGCCTCCCGTAGGAGT	Office	Chair SF 7
SFMC29	CGACTTATGTGT	CATGCTGCCTCCCGTAGGAGT	Office	Chair SF 8
SFMC5	CGAAGACTGCTG	CATGCTGCCTCCCGTAGGAGT	Office	Chair SF 9
SFMC7	CGAATCGACACT	CATGCTGCCTCCCGTAGGAGT	Office	Chair SF 10
SFMP16	TCCTGAGATACG	CATGCTGCCTCCCGTAGGAGT	Office	Phone SF 2
SFMP28	TCGAATCACAGC	CATGCTGCCTCCCGTAGGAGT	Office	Phone SF 7
SFMP29	TCGACTCCTCGT	CATGCTGCCTCCCGTAGGAGT	Office	Phone SF 8
SFMP7	TCCTCTGTGAC	CATGCTGCCTCCCGTAGGAGT	Office	Phone SF 9
TUFC13	CGTAGAACGTGC	CATGCTGCCTCCCGTAGGAGT	Office	Chair AZ 1
TUFC19	CGTATCTGCGAA	CATGCTGCCTCCCGTAGGAGT	Office	Chair AZ 2
TUFC22	CGTATGCTGTAT	CATGCTGCCTCCCGTAGGAGT	Office	Chair AZ 3
TUFC24	CGTACTAGACTG	CATGCTGCCTCCCGTAGGAGT	Office	Chair AZ 4
TUFC4	CGTCAACGATGT	CATGCTGCCTCCCGTAGGAGT	Office	Chair AZ 5
TUFP22	CGTAAGTCTACT	CATGCTGCCTCCCGTAGGAGT	Office	Phone AZ 4
TUFP24	CGGCGATGTACA	CATGCTGCCTCCCGTAGGAGT	Office	Phone AZ 1
TUFP4	CGTACAGTTATC	CATGCTGCCTCCCGTAGGAGT	Office	Phone AZ 3
TUMC11	CGCGATAGCAGT	CATGCTGCCTCCCGTAGGAGT	Office	Chair AZ 6
TUMC15	CGCGTAACTGTA	CATGCTGCCTCCCGTAGGAGT	Office	Chair AZ 7
TUMC18	CGCTAGAACGCA	CATGCTGCCTCCCGTAGGAGT	Office	Chair AZ 8
TUMC23	CGCTTATCGAGA	CATGCTGCCTCCCGTAGGAGT	Office	Chair AZ 9
TUMC25	CGGAGTGTCTAT	CATGCTGCCTCCCGTAGGAGT	Office	Chair AZ 10

TUMP11	CGCACATGTTAT	CATGCTGCCTCCCGTAGGAGT	Office	Phone AZ 2
TUMP15	CGCACTCTAGAA	CATGCTGCCTCCCGTAGGAGT	Office	Phone AZ 5
TUMP18	CGCAGACAGACT	CATGCTGCCTCCCGTAGGAGT	Office	Phone AZ 6
TUMP23	CGCAGCGGTATA	CATGCTGCCTCCCGTAGGAGT	Office	Phone AZ 7
TUMP25	CGCATGAGGATC	CATGCTGCCTCCCGTAGGAGT	Office	Phone AZ 8

Supplementary Table 2. Sample identifiers and descriptions for “Source” data samples.

Sample ID	Environment	Description
AR1	Soil	Oxisol 1
BB2	Soil	Spodosol 1
BF1	Soil	Alfisol 1
BP1	Soil	Entisol 1
BZ1	Soil	Gelisol 1
CA2	Soil	Alfisol 2
CC1	Soil	Inceptisol 1
CF3	Soil	Inceptisol 2
CL3	Soil	Ultisol
CM1	Soil	Mollisol 1
CO2	Soil	Alfisol 3
CO3	Soil	Mollisol 2
CR1	Soil	Mollisol 3
DF3	Soil	Alfisol 4
GB5	Soil	Mollisol 4
HF2	Soil	Inceptisol 3
HI4	Soil	Andisol 1
HJ2	Soil	Andisol 2
IE2	Soil	Inceptisol 4
IT2	Soil	Spodosol 2
JT1	Soil	Aridisol 3
KP4	Soil	Mollisol 5
LQ2	Soil	Inceptisol 5
MD5	Soil	Aridisol 4
MP2	Soil	Inceptisol 6
MT1	Soil	Inceptisol 7
PE1	Soil	Inceptisol 8
PE7	Soil	Oxisol 2
RT1	Soil	Mollisol 6
RT2	Soil	Mollisol 7
SA1	Soil	Entisol 2
SA2	Soil	Entisol 3
SB1	Soil	Inceptisol 9
SF1	Soil	Aridisol 5
SK1	Soil	Mollisol 8
SK3	Soil	Mollisol 9
SN1	Soil	Inceptisol 10
SN3	Soil	Inceptisol 11

SP1	Soil	Inceptisol 12
SP2	Soil	Entisol 4
SR2	Soil	Mollisol 10
SV1	Soil	Aridisol 6
SV2	Soil	Aridisol 7
TL3	Soil	Gelisol 2
VC2	Soil	Mollisol 11
F11Fcsp	Gut	Gut 1
F11Fcsw	Gut	Gut 2
F12Fcsp	Gut	Gut 3
F12Fcsw	Gut	Gut 4
F13Fcsw	Gut	Gut 5
F14Fcsw	Gut	Gut 6
F21Fcsp	Gut	Gut 7
F21Fcsw	Gut	Gut 8
F22Fcsp	Gut	Gut 9
F22Fcsw	Gut	Gut 10
F23Fcsw	Gut	Gut 11
F24Fcsw	Gut	Gut 12
F31Fcsp	Gut	Gut 13
F31Fcsw	Gut	Gut 14
F32Fcsp	Gut	Gut 15
F32Fcsw	Gut	Gut 16
F33Fcsw	Gut	Gut 17
F34Fcsw	Gut	Gut 18
M11Fcsp	Gut	Gut 19
M11Fcsw	Gut	Gut 20
M12Fcsp	Gut	Gut 21
M12Fcsw	Gut	Gut 22
M13Fcsw	Gut	Gut 23
M14Fcsw	Gut	Gut 24
M21Fcsp	Gut	Gut 25
M21Fcsw	Gut	Gut 26
M22Fcsp	Gut	Gut 27
M22Fcsw	Gut	Gut 28
M23Fcsw	Gut	Gut 29
M24Fcsw	Gut	Gut 30
M31Fcsp	Gut	Gut 31
M31Fcsw	Gut	Gut 32
M32Fcsp	Gut	Gut 33
M32Fcsw	Gut	Gut 34

M33Fcsw	Gut	Gut 35
M41Fcsp	Gut	Gut 36
M41Fcsw	Gut	Gut 37
M42Fcsp	Gut	Gut 38
M42Fcsw	Gut	Gut 39
M43Fcsw	Gut	Gut 40
M44Fcsw	Gut	Gut 41
M53Fcsw	Gut	Gut 42
M54Fcsw	Gut	Gut 43
M63Fcsw	Gut	Gut 44
M64Fcsw	Gut	Gut 45
F11Tong	Oral	Tongue 1
F12Tong	Oral	Tongue 2
F13Tong	Oral	Tongue 3
F14Tong	Oral	Tongue 4
F21Tong	Oral	Tongue 5
F22Tong	Oral	Tongue 6
F23Tong	Oral	Tongue 7
F24Tong	Oral	Tongue 8
F31Tong	Oral	Tongue 9
F32Tong	Oral	Tongue 10
F33Tong	Oral	Tongue 11
F34Tong	Oral	Tongue 12
M11Tong	Oral	Tongue 13
M12Tong	Oral	Tongue 14
M13Tong	Oral	Tongue 15
M14Tong	Oral	Tongue 16
M21Tong	Oral	Tongue 17
M22Tong	Oral	Tongue 18
M23Tong	Oral	Tongue 19
M24Tong	Oral	Tongue 20
M31Tong	Oral	Tongue 21
M32Tong	Oral	Tongue 22
M33Tong	Oral	Tongue 23
M34Tong	Oral	Tongue 24
M41Tong	Oral	Tongue 25
M42Tong	Oral	Tongue 26
M43Tong	Oral	Tongue 27
M44Tong	Oral	Tongue 28
M53Tong	Oral	Tongue 29
M54Tong	Oral	Tongue 30

M63Tong	Oral	Tongue 31
F11Mout	Oral	Mouth 1
F12Mout	Oral	Mouth 2
F21Mout	Oral	Mouth 3
F22Mout	Oral	Mouth 4
F31Mout	Oral	Mouth 5
F32Mout	Oral	Mouth 6
M11Mout	Oral	Mouth 7
M12Mout	Oral	Mouth 8
M21Mout	Oral	Mouth 9
M22Mout	Oral	Mouth 10
M31Mout	Oral	Mouth 11
M32Mout	Oral	Mouth 12
M41Mout	Oral	Mouth 13
M42Mout	Oral	Mouth 14
F11Frhd	Skin	Forehead 1
F24Frhd	Skin	Forehead 2
F32Frhd	Skin	Forehead 3
M14Frhd	Skin	Forehead 4
M23Frhd	Skin	Forehead 5
M32Frhd	Skin	Forehead 6
M43Frhd	Skin	Forehead 7
M54Frhd	Skin	Forehead 8
M63Frhd	Skin	Forehead 9
F13Plml	Skin	L Palm 1
F24Plml	Skin	L Palm 2
F31Plml	Skin	L Palm 3
M13Plml	Skin	L Palm 4
M23Plml	Skin	L Palm 5
M33Plml	Skin	L Palm 6
M43Plml	Skin	L Palm 7
M53Plml	Skin	L Palm 8
M63Plml	Skin	L Palm 9
F11Indl	Skin	L index 1
F21Indl	Skin	L index 2
F31Indl	Skin	L index 3
F32Indl	Skin	L index 4
M11Indl	Skin	L index 5
M12Indl	Skin	L index 6
M22Indl	Skin	L index 7
M31Indl	Skin	L index 8

M41Indl	Skin	L index 9
F11Plmr	Skin	R palm 1
F23Plmr	Skin	R palm 2
F32Plmr	Skin	R palm 3
M11Plmr	Skin	R palm 4
M23Plmr	Skin	R palm 5
M33Plmr	Skin	R palm 6
M43Plmr	Skin	R palm 7
M53Plmr	Skin	R palm 8
M64Plmr	Skin	R palm 9
F12Indr	Skin	R index 1
F21Indr	Skin	R index 2
F31Indr	Skin	R index 3
F32Indr	Skin	R index 4
M11Indr	Skin	R index 5
M21Indr	Skin	R index 6
M31Indr	Skin	R index 7
M41Indr	Skin	R index 8
M42Indr	Skin	R index 9

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1. Liaw, A. & Wiener, M., *R News* **2** (3), 18-22 (2002).