GSA Data Repository Item 2015169

The effect of vegetation cover on millennial-scale landscape denudation rates in East Africa

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Figure DR1. Catchment morphology for samples in the Northern, Central and Southern Kenya Rift. For each catchment (S01-S03, C01-C10, and N01-N07), we show (a) lithology, (b) relief, (c) median catchment slope, (d) mean annual precipitation, (e) vegetation cover based on Enhanced Vegetation Index (EVI), (f) elevation, based on 90-m resolution SRTM data, and (g) combination of the river longitudinal profile with schematic depiction of geology, slope-area plots, and the distribution of slope values for the catchment.

Figure DR2. Catchment morphology for samples in the Rwenzori Mountains. For each catchment (294, 295, 300, 311, 316, 321, 337, 359, 375, 398, 399, 9, 28, 24, 538), we show (a) lithology, (b) relief, (c) median catchment slope, (d) mean annual precipitation, (e) vegetation cover based on Enhanced Vegetation Index (EVI), (f) elevation, based on 90-m resolution SRTM data.

S-01

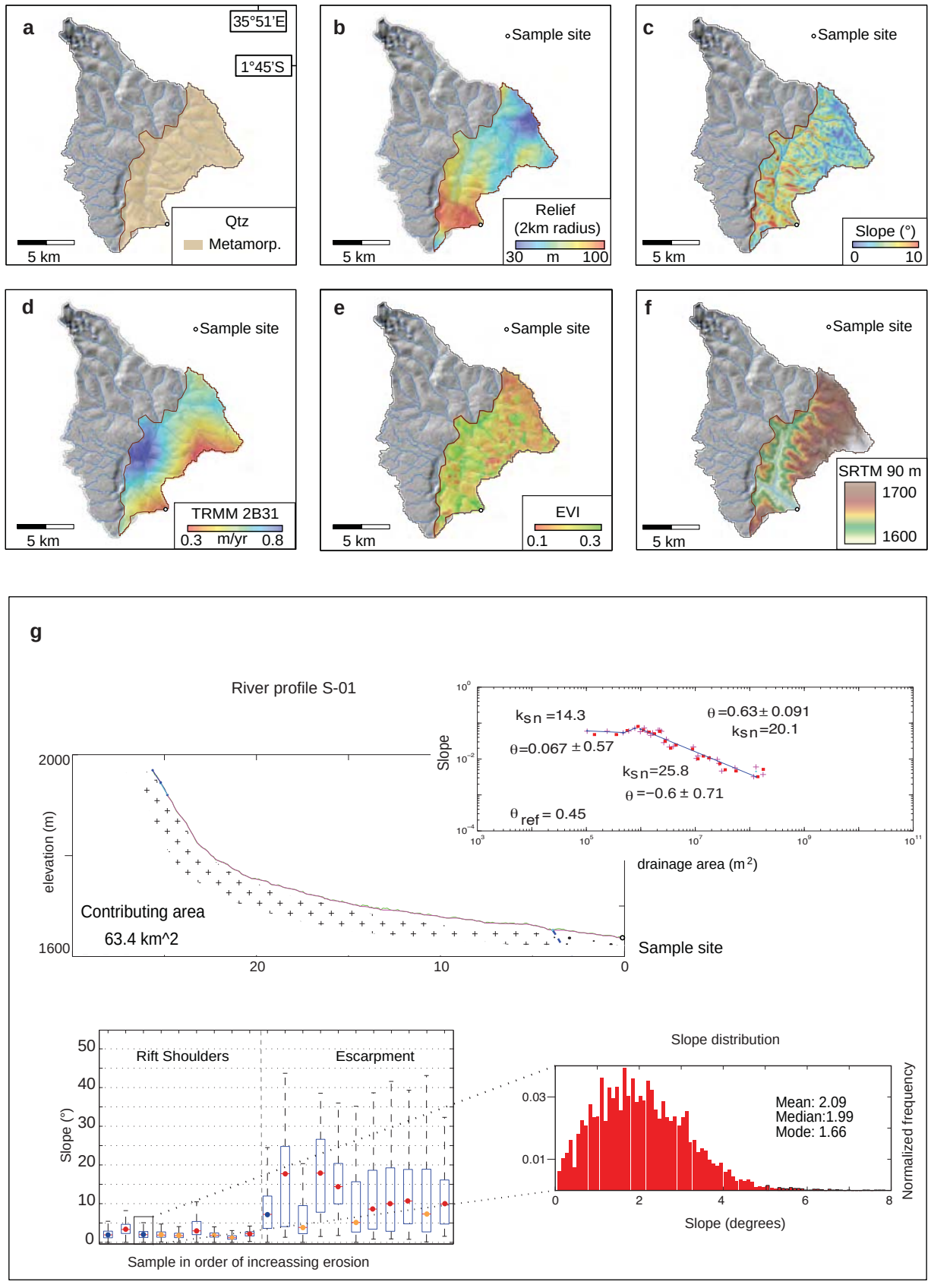
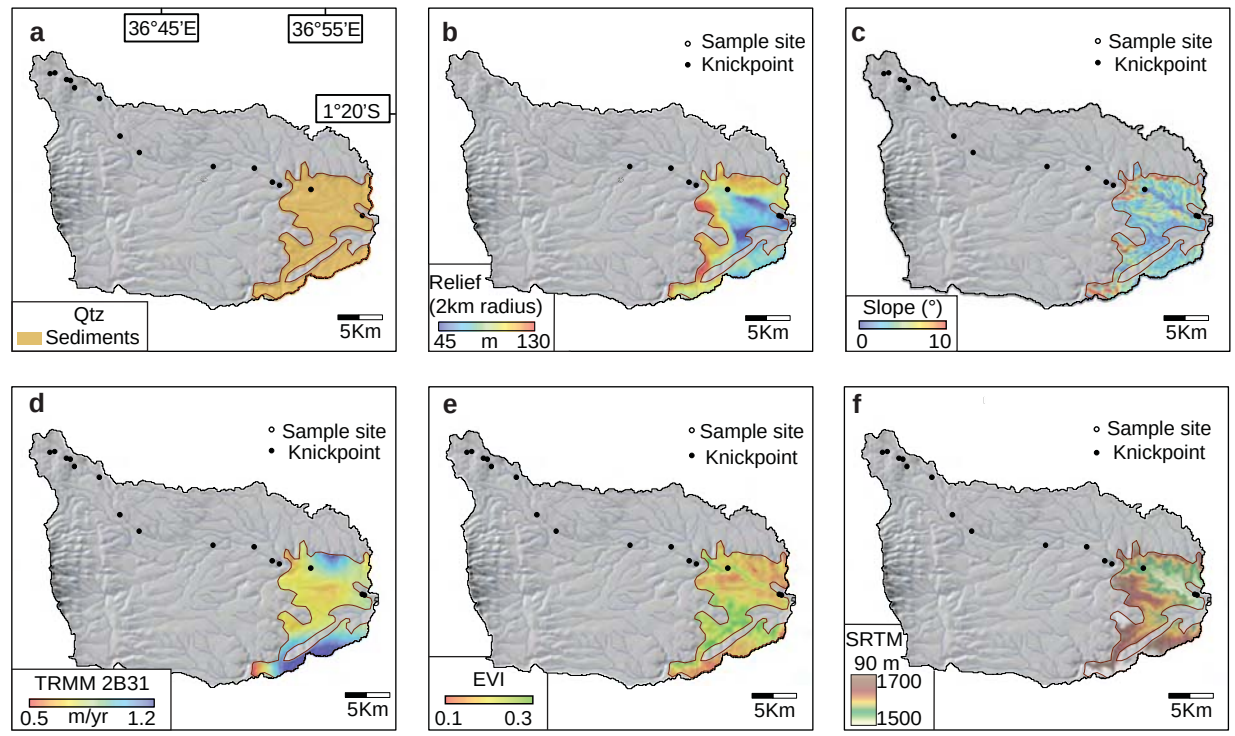
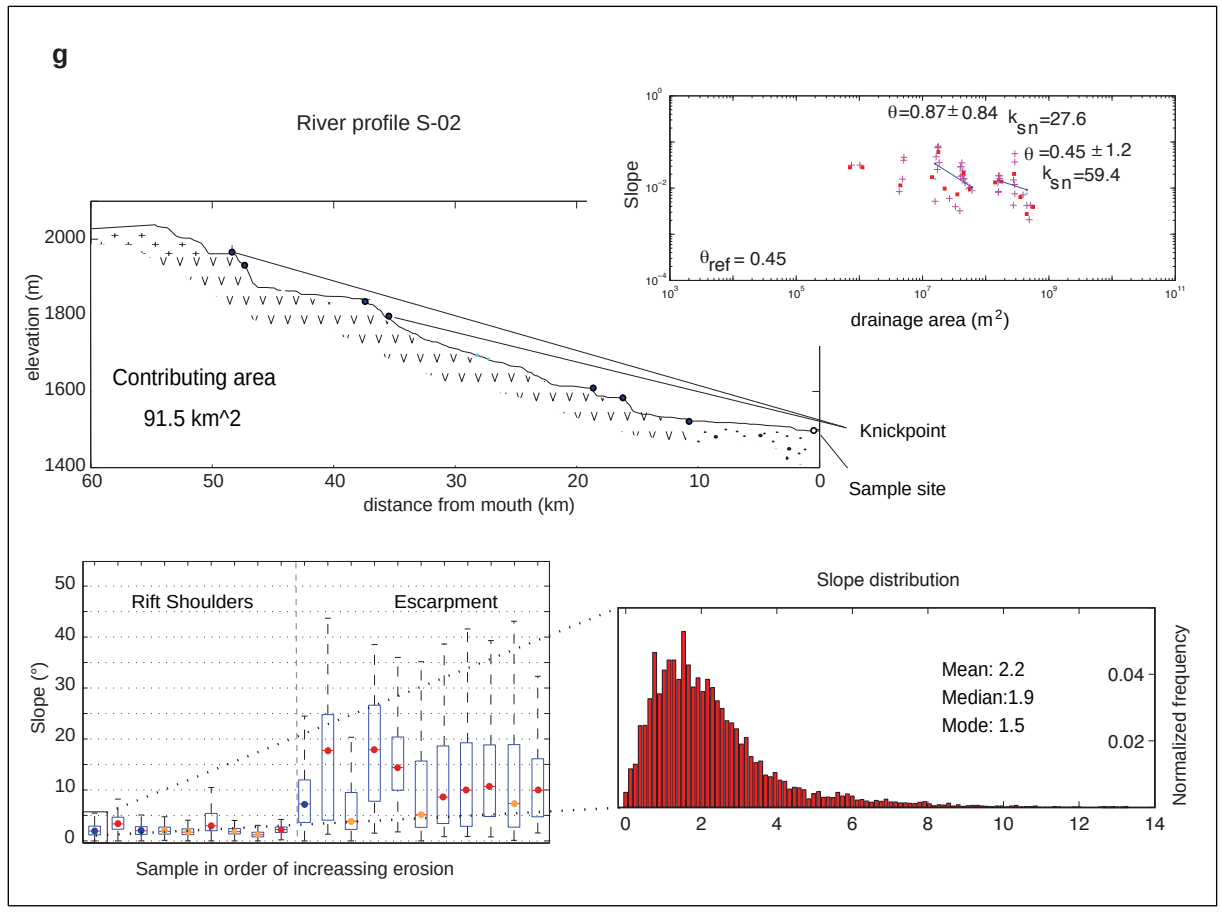


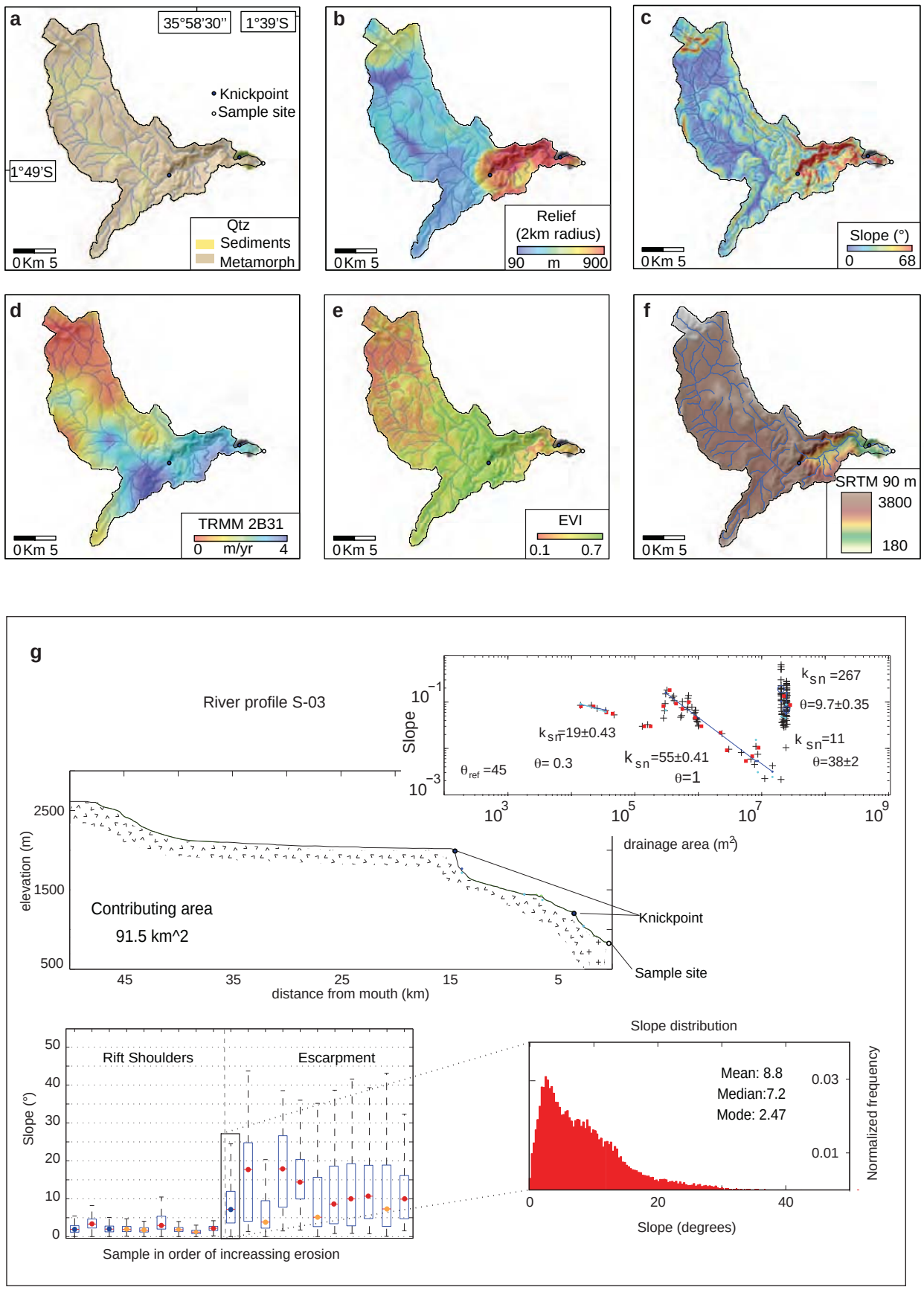
Figure DR1.

S-02

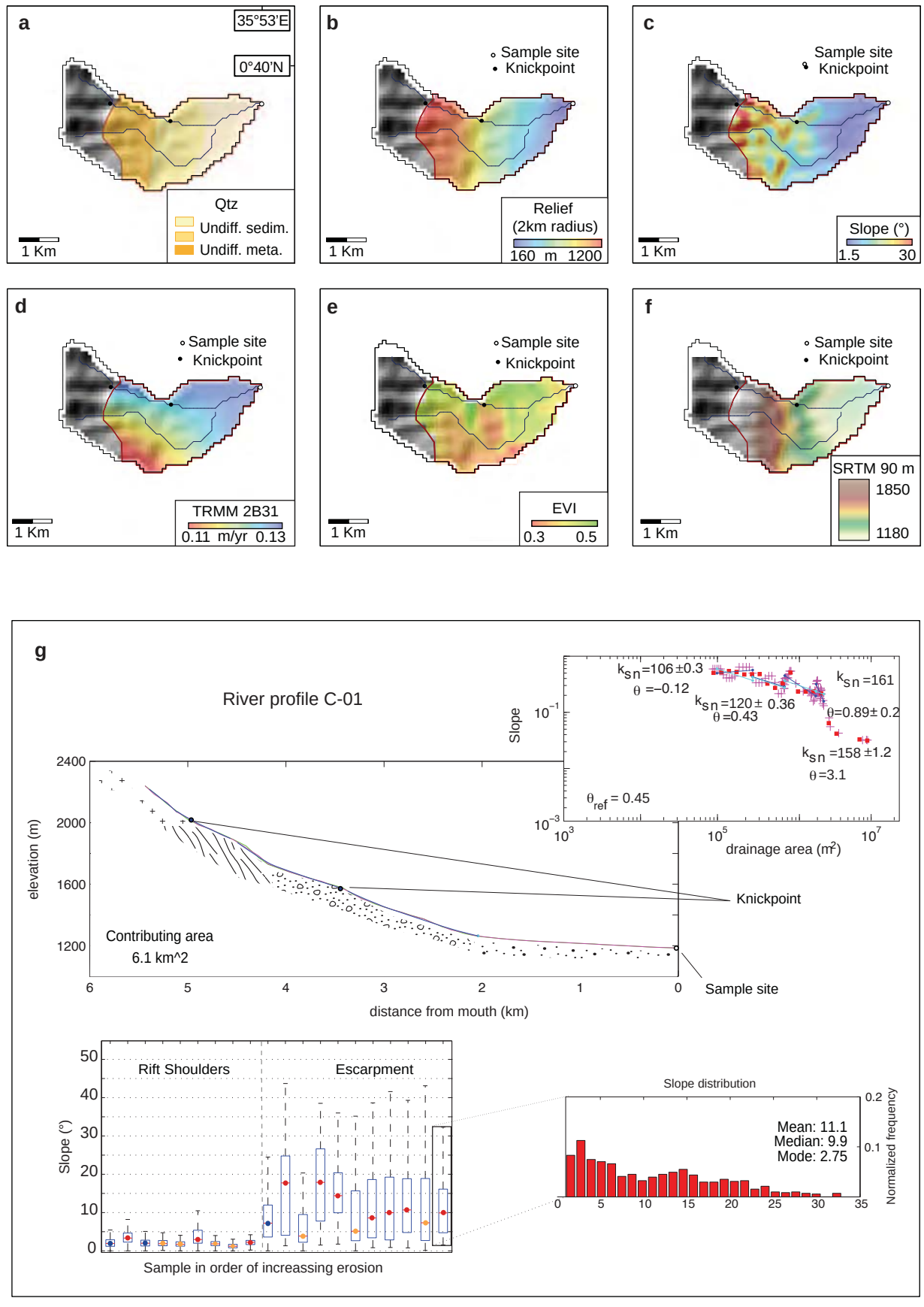

a
36°45'E
36°55'E
1°20'S
Qtz
Sediments
5Km
b
Sample site
Knickpoint
Relief
(2km radius)
45 m 130
5Km
c
Sample site
Knickpoint
Slope (°)
0 10
5Km
d
Sample site
Knickpoint
TRMM 2B31
0.5 m/yr 1.2
5Km
e
Sample site
Knickpoint
EVI
0.1 0.3
5Km
f
Sample site
Knickpoint
SRTM
90 m
1700
1500
5Km


g
River profile S-02
elevation (m)
distance from mouth (km)
Contributing area
91.5 km^2
Knickpoint
Sample site
Slope
drainage area (m2)
θ=0.87±0.84 ksn=27.6
θ =0.45 ±1.2
ksn=59.4
θref = 0.45
Rift Shoulders
Escarpment
Slope (°)
Sample in order of increassing erosion
Slope distribution
Mean: 2.2
Median:1.9
Mode: 1.5
Normalized frequency

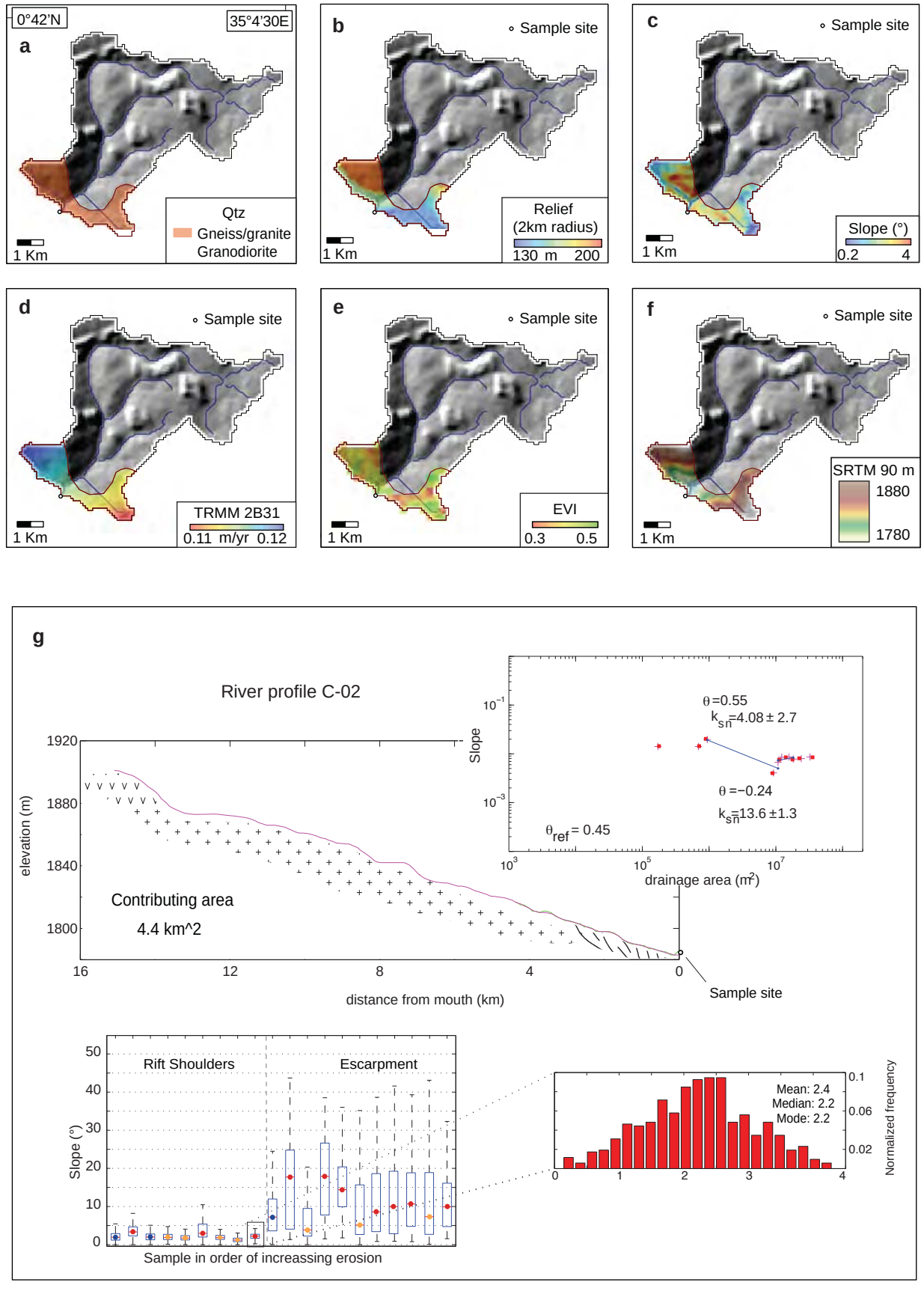
S-03


a
35°58'30"
1°39'S
1°49'S
Knickpoint
Sample site
Qtz
Sediments
Metamorph
0 Km 5
b
Relief
(2km radius)
90 m 900
c
Slope (°)
0 68
d
TRMM 2B31
0 m/yr 4
e
EVI
0.1 0.7
f
SRTM 90 m
3800
180
g
River profile S-03
Slope
k_{sn} =267
θ=9.7±0.35
k_{sn}=19±0.43
θ= 0.3
k_{sn}=55±0.41
θ=1
k_{sn}=11
θ=38±2
θ_{ref} =45
drainage area (m²)
elevation (m)
Contributing area
91.5 km^2
Knickpoint
Sample site
distance from mouth (km)
Rift Shoulders
Escarpment
Slope (°)
Sample in order of increassing erosion
Slope distribution
Mean: 8.8
Median:7.2
Mode: 2.47
Normalized frequency
Slope (degrees)

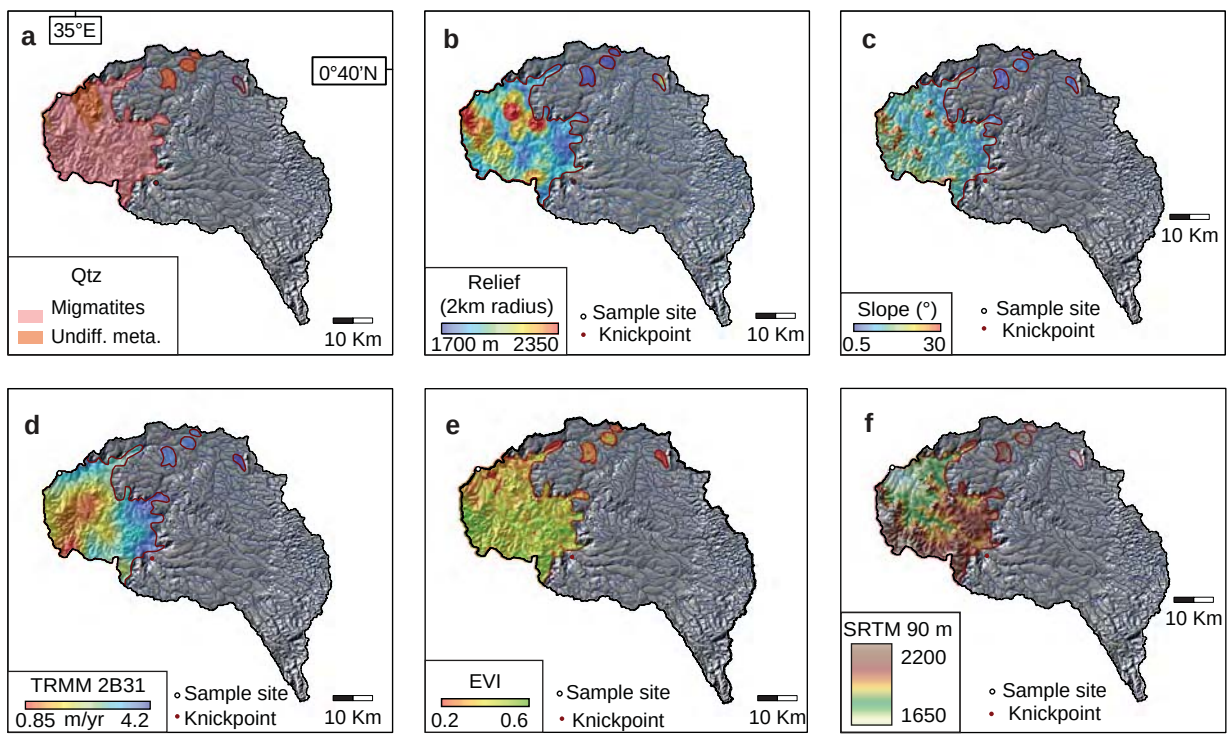
C-01

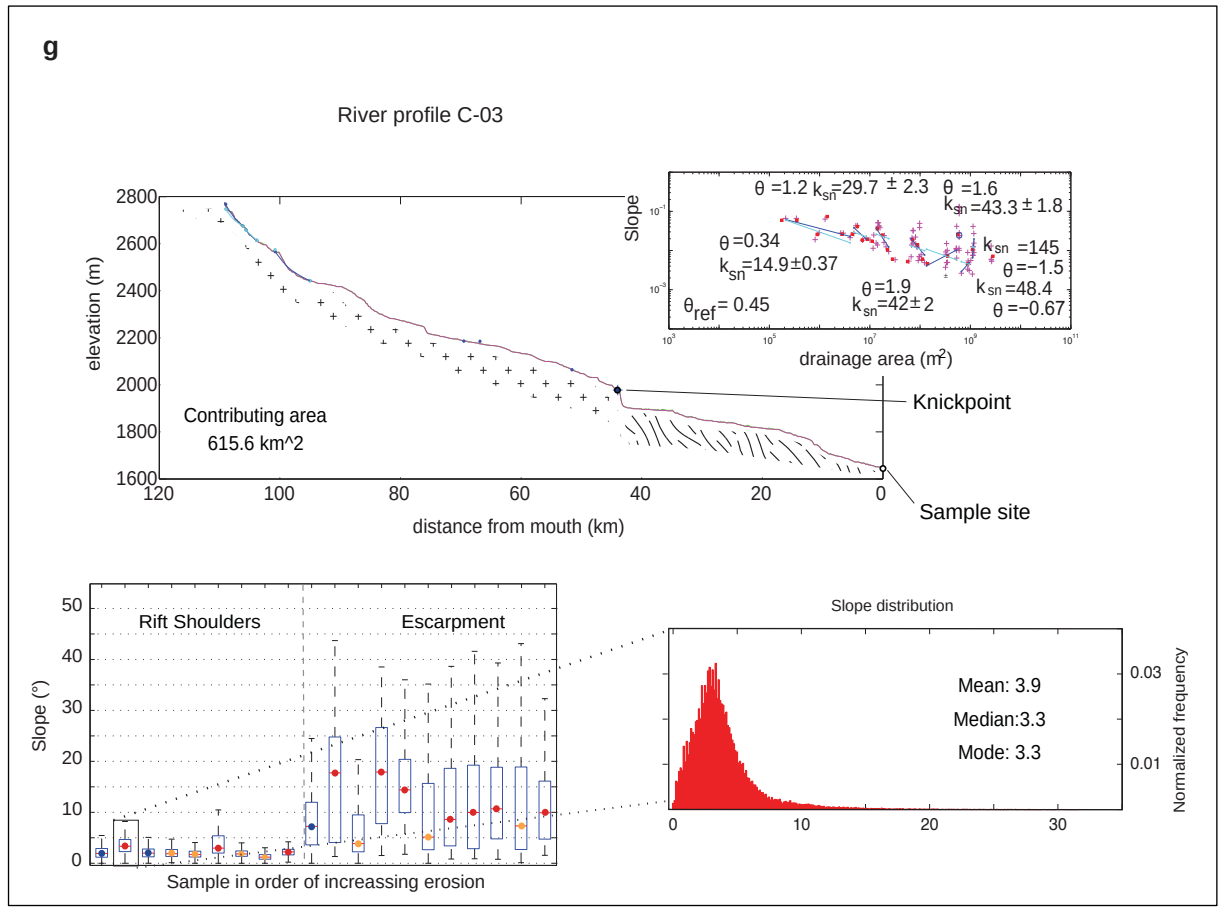

a
35°53'E
0°40'N
Qtz
Undiff. sedim.
Undiff. meta.
1 Km
b
Sample site
Knickpoint
Relief
(2km radius)
160 m 1200
1 Km
c
Sample site
Knickpoint
Slope (°)
1.5 30
1 Km
d
Sample site
Knickpoint
TRMM 2B31
0.11 m/yr 0.13
1 Km
e
Sample site
Knickpoint
EVI
0.3 0.5
1 Km
f
Sample site
Knickpoint
SRTM 90 m
1850
1180
1 Km
g
River profile C-01
elevation (m)
distance from mouth (km)
Contributing area
6.1 km^2
Knickpoint
Sample site
Slope
drainage area (m^2)
k_{sn}=106 ±0.3
θ =−0.12
k_{sn}=120 ± 0.36
θ =0.43
k_{sn} =161
θ=0.89± 0.2
k_{sn} =158 ±1.2
θ =3.1
θ_{ref} = 0.45
Rift Shoulders
Escarpment
Slope (°)
Sample in order of increasing erosion
Slope distribution
Mean: 11.1
Median: 9.9
Mode: 2.75
Normalized frequency

C-02

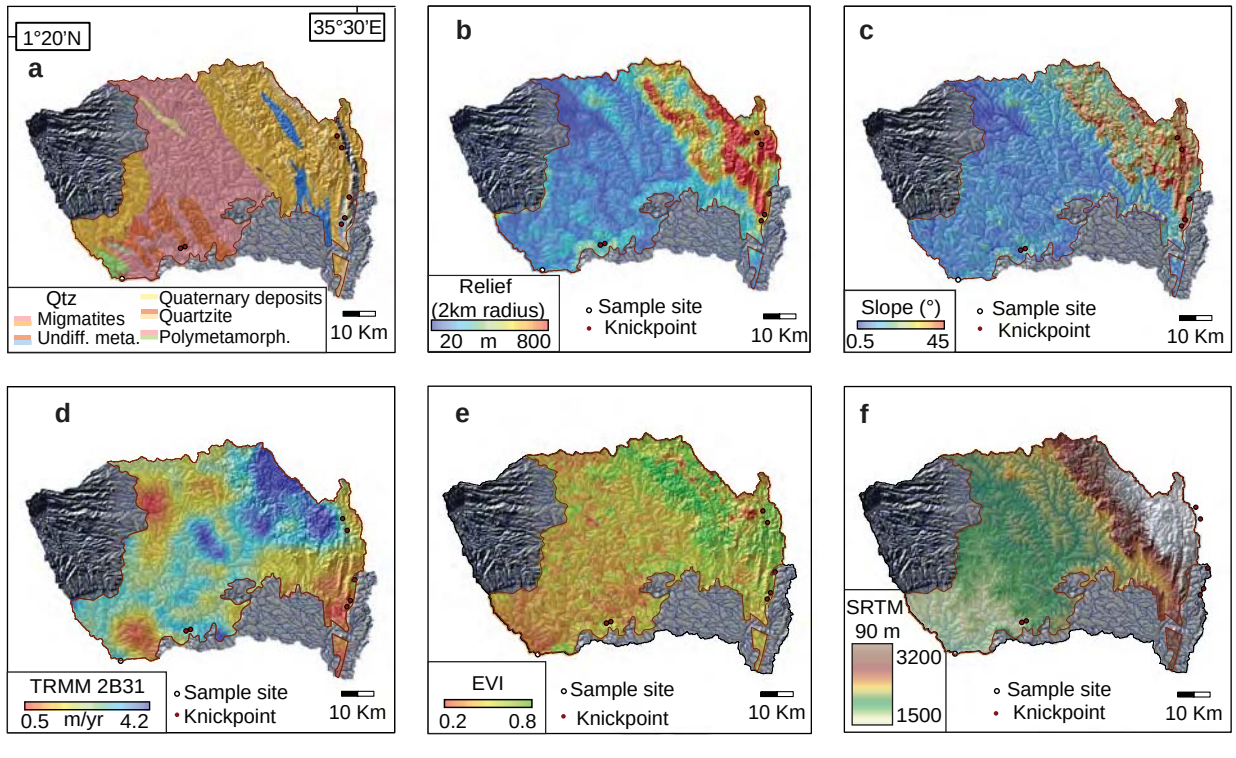

0°42'N
35°4'30E
a
Qtz
Gneiss/granite
Granodiorite
1 Km
b
Sample site
Relief
(2km radius)
130 m 200
1 Km
c
Sample site
Slope (°)
0.2 4
1 Km
d
Sample site
TRMM 2B31
0.11 m/yr 0.12
1 Km
e
Sample site
EVI
0.3 0.5
1 Km
f
Sample site
SRTM 90 m
1880
1780
1 Km
g
River profile C-02
elevation (m)
1920
1880
1840
1800
Contributing area
4.4 km^2
16
12
8
4
0
distance from mouth (km)
Sample site
Slope
θ =0.55
k_sn=4.08 ± 2.7
θ =−0.24
k_sn=13.6 ±1.3
θ_ref = 0.45
drainage area (m²)
Rift Shoulders
Escarpment
Slope (°)
Sample in order of increassing erosion
Mean: 2.4
Median: 2.2
Mode: 2.2
Normalized frequency

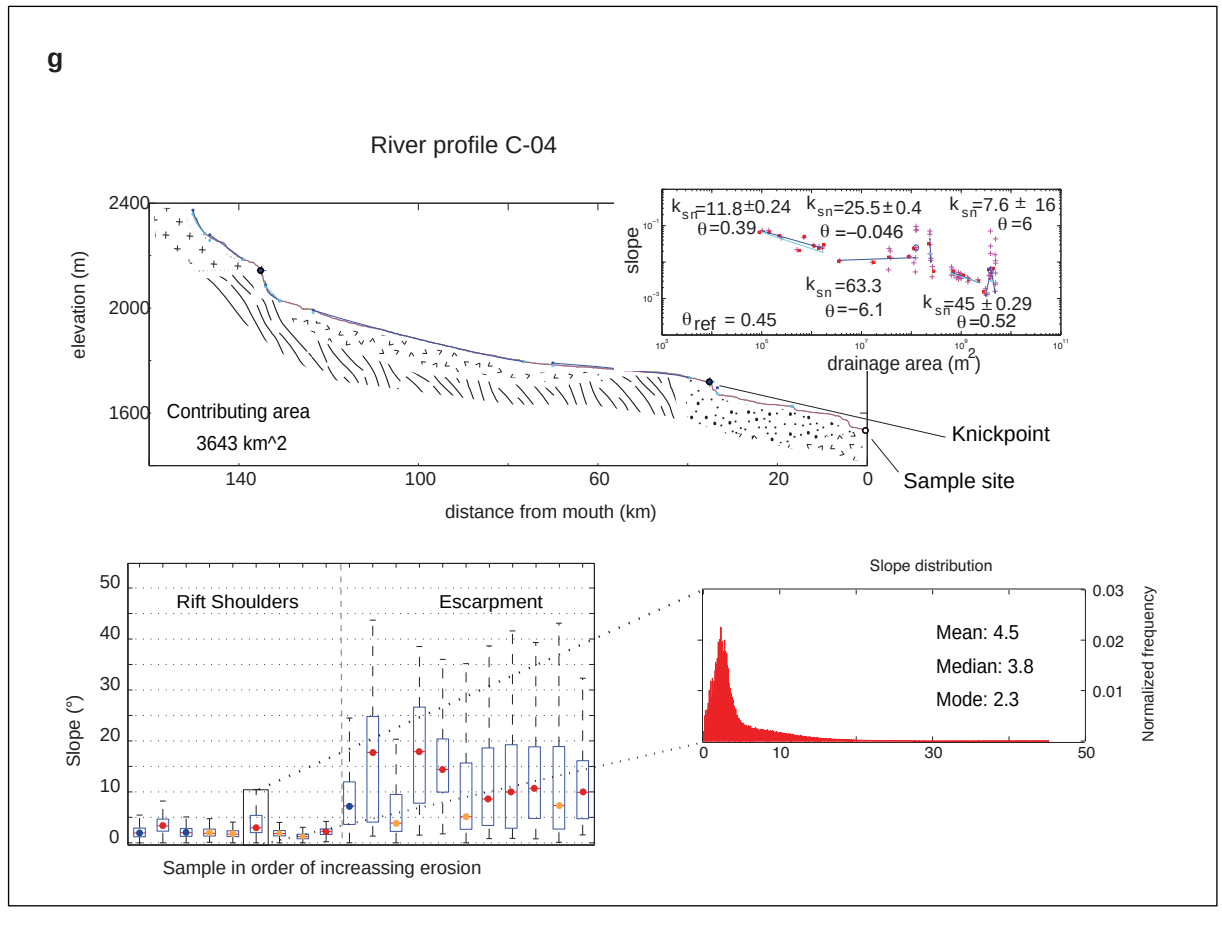
C-03


a
35°E
0°40'N
Qtz
Migmatites
Undiff. meta.
10 Km
b
Relief
(2km radius)
1700 m 2350
Sample site
Knickpoint
10 Km
c
Slope (°)
0.5 30
Sample site
Knickpoint
10 Km
d
TRMM 2B31
0.85 m/yr 4.2
Sample site
Knickpoint
10 Km
e
EVI
0.2 0.6
Sample site
Knickpoint
10 Km
f
SRTM 90 m
2200
1650
Sample site
Knickpoint
10 Km

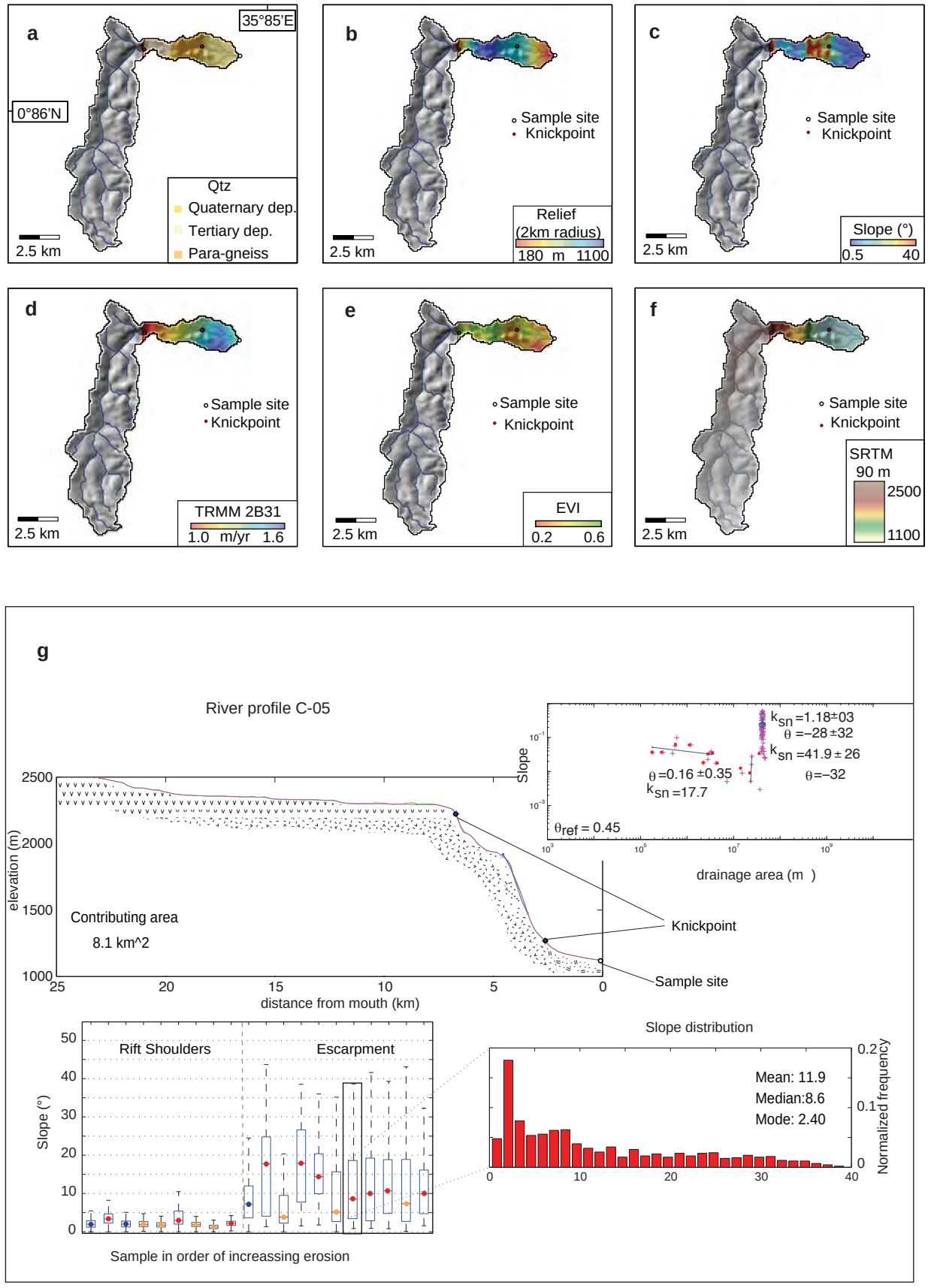

g
River profile C-03
elevation (m)
distance from mouth (km)
Contributing area
615.6 km^2
Knickpoint
Sample site
Slope
drainage area (m²)
θ =1.2 ksn=29.7 ± 2.3
θ =1.6
ksn =43.3 ± 1.8
θ =0.34
ksn=14.9±0.37
ksn =145
θ =−1.5
θref= 0.45
θ =1.9
ksn=42± 2
ksn =48.4
θ =−0.67
Rift Shoulders
Escarpment
Slope (°)
Sample in order of increassing erosion
Slope distribution
Mean: 3.9
Median:3.3
Mode: 3.3
Normalized frequency

C-04

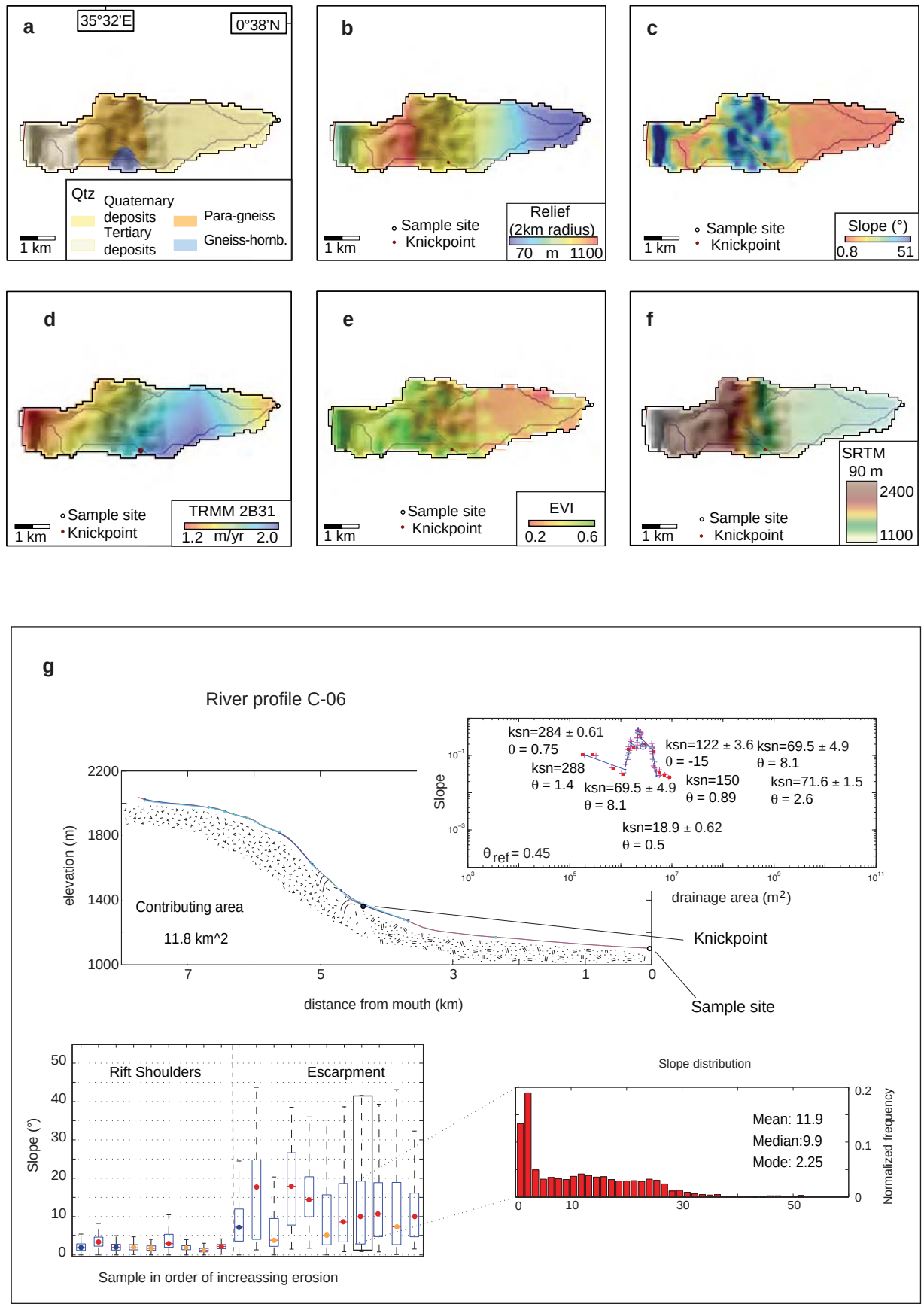

a
1°20'N
35°30'E
Qtz
Migmatites
Undiff. meta.
Quaternary deposits
Quartzite
Polymetamorph.
10 Km
b
Relief
(2km radius)
20 m 800
Sample site
Knickpoint
10 Km
c
Slope (°)
0.5 45
Sample site
Knickpoint
10 Km
d
TRMM 2B31
0.5 m/yr 4.2
Sample site
Knickpoint
10 Km
e
EVI
0.2 0.8
Sample site
Knickpoint
10 Km
f
SRTM
90 m
3200
1500
Sample site
Knickpoint
10 Km


g
River profile C-04
elevation (m)
2400
2000
1600
Contributing area
3643 km^2
140
100
60
20
0
distance from mouth (km)
Knickpoint
Sample site
slope
drainage area (m^2)
k_sn=11.8±0.24
θ=0.39
k_sn=25.5±0.4
θ=−0.046
k_sn=7.6 ± 16
θ=6
k_sn=63.3
θ=−6.1
k_sn=45 ± 0.29
θ=0.52
θ_ref = 0.45
Slope (°)
Rift Shoulders
Escarpment
Sample in order of increassing erosion
Slope distribution
Mean: 4.5
Median: 3.8
Mode: 2.3
Normalized frequency

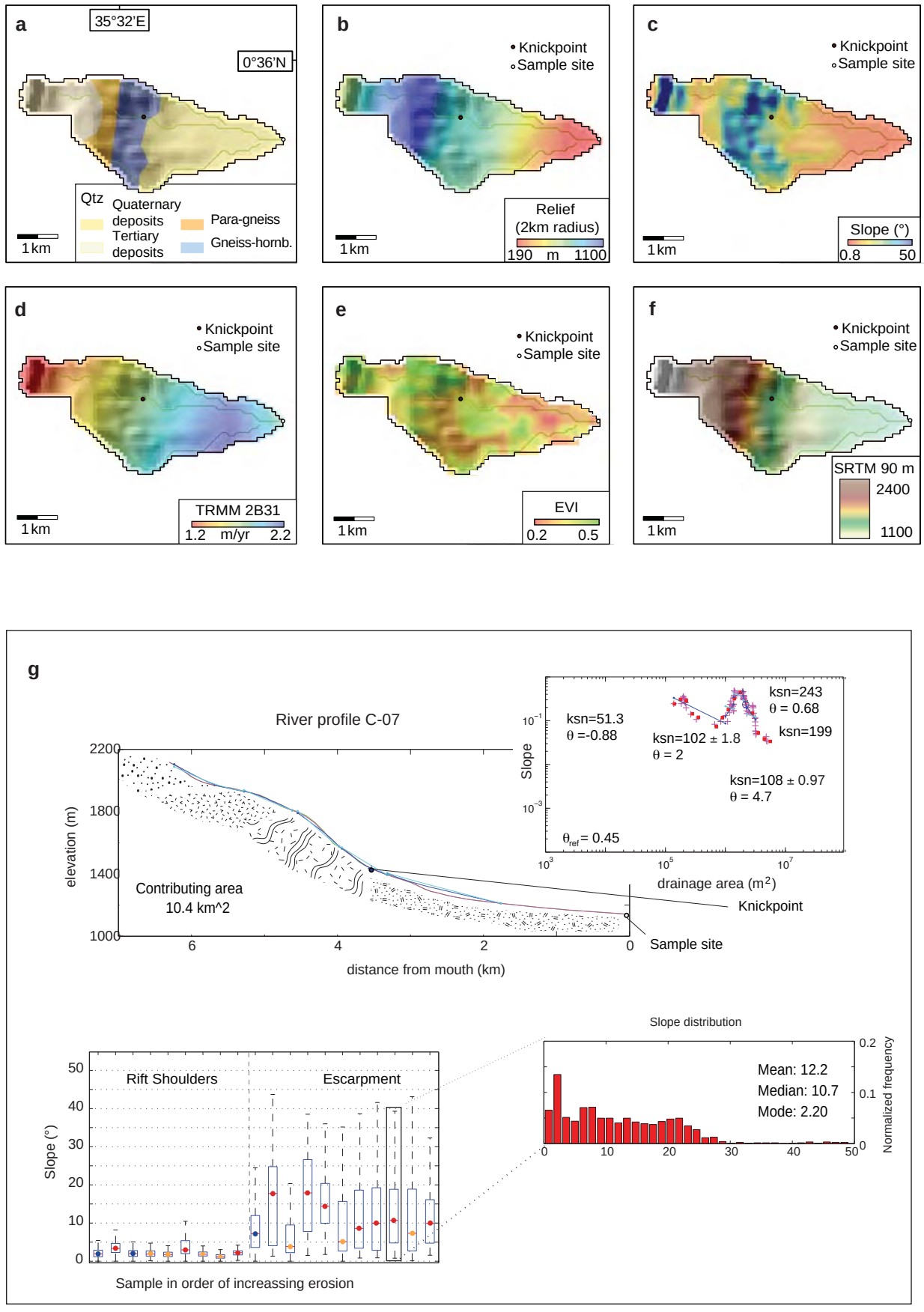
C-05


a
35°85'E
0°86'N
Qtz
Quaternary dep.
Tertiary dep.
Para-gneiss
2.5 km
b
Sample site
Knickpoint
Relief
(2km radius)
180 m 1100
2.5 km
c
Sample site
Knickpoint
Slope (°)
0.5 40
2.5 km
d
Sample site
Knickpoint
TRMM 2B31
1.0 m/yr 1.6
2.5 km
e
Sample site
Knickpoint
EVI
0.2 0.6
2.5 km
f
Sample site
Knickpoint
SRTM
90 m
2500
1100
2.5 km
g
River profile C-05
elevation (m)
distance from mouth (km)
Contributing area
8.1 km^2
Knickpoint
Sample site
Slope
drainage area (m)
k_{sn} =1.18±03
θ =−28 ±32
k_{sn} =41.9 ± 26
θ=−32
θ=0.16 ±0.35
k_{sn} =17.7
θ_{ref} = 0.45
Rift Shoulders
Escarpment
Slope (°)
Sample in order of increassing erosion
Slope distribution
Mean: 11.9
Median:8.6
Mode: 2.40
Normalized frequency

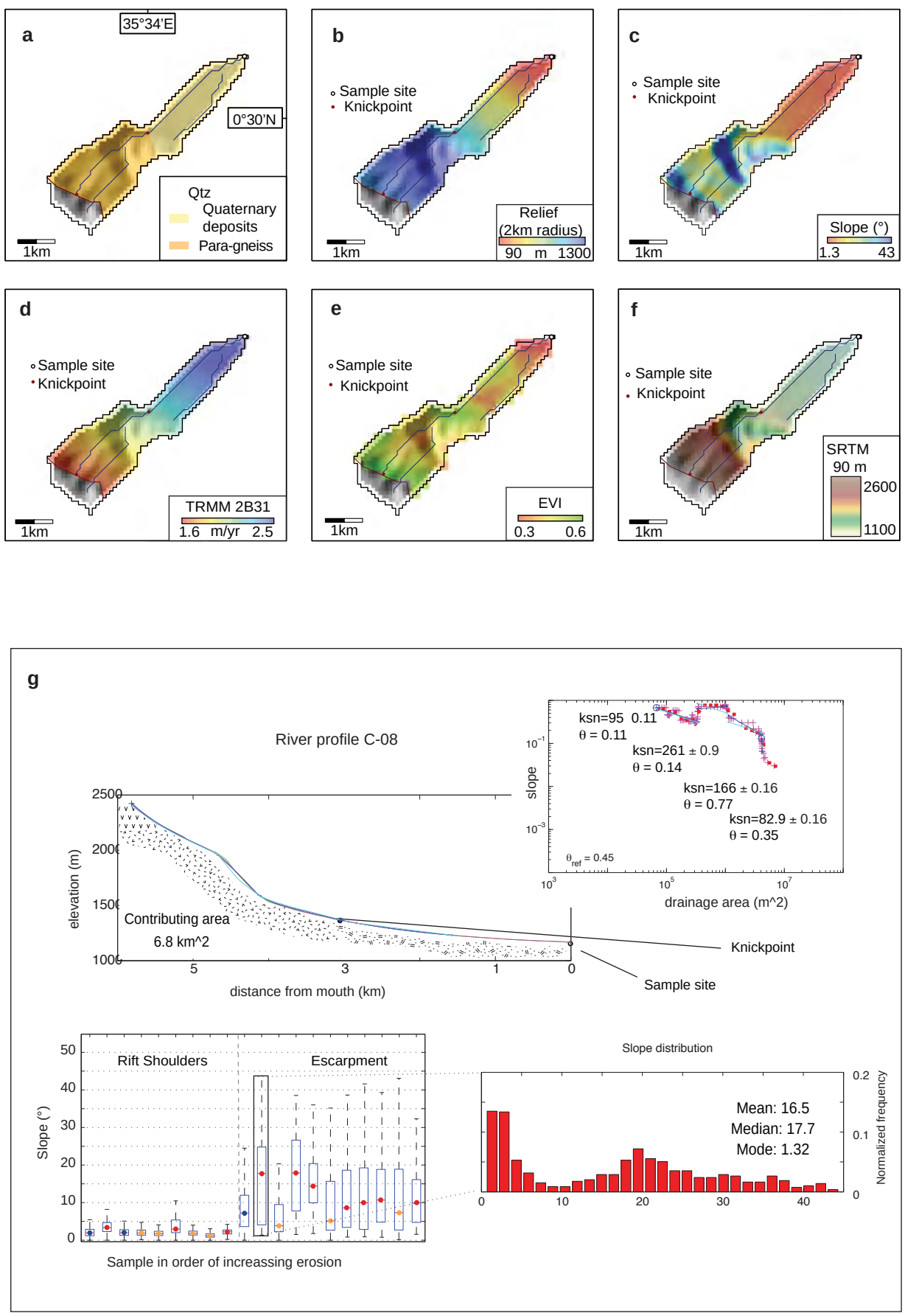
C-06


a
35°32'E
0°38'N
Qtz
Quaternary deposits
Tertiary deposits
Para-gneiss
Gneiss-hornb.
1 km
b
Sample site
Knickpoint
Relief (2km radius)
70 m 1100
c
Slope (°)
0.8 51
d
TRMM 2B31
1.2 m/yr 2.0
e
EVI
0.2 0.6
f
SRTM 90 m
2400
1100
g
River profile C-06
elevation (m)
Contributing area
11.8 km^2
distance from mouth (km)
Knickpoint
Sample site
Slope
drainage area (m²)
ksn=284 ± 0.61
θ = 0.75
ksn=288
θ = 1.4
ksn=69.5 ± 4.9
θ = 8.1
ksn=122 ± 3.6
θ = -15
ksn=150
θ = 0.89
ksn=69.5 ± 4.9
θ = 8.1
ksn=71.6 ± 1.5
θ = 2.6
ksn=18.9 ± 0.62
θ = 0.5
θ ref = 0.45
Rift Shoulders
Escarpment
Slope (°)
Sample in order of increassing erosion
Slope distribution
Mean: 11.9
Median:9.9
Mode: 2.25
Normalized frequency

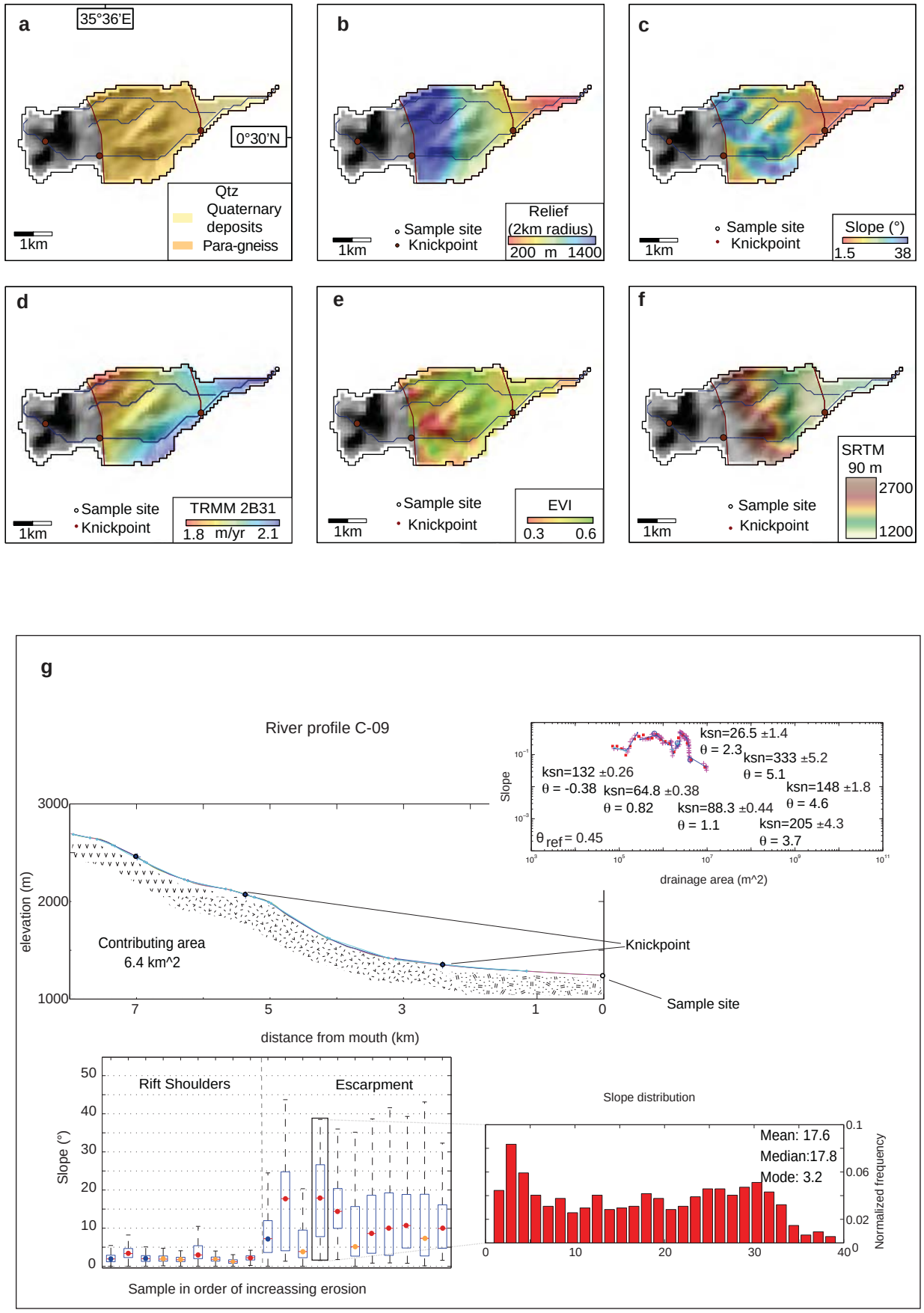
C-07


a
35°32'E
0°36'N
Qtz
Quaternary deposits
Tertiary deposits
Para-gneiss
Gneiss-hornb.
1 km
b
Knickpoint
Sample site
Relief (2km radius)
190 m 1100
1 km
c
Knickpoint
Sample site
Slope (°)
0.8 50
1 km
d
Knickpoint
Sample site
TRMM 2B31
1.2 m/yr 2.2
1 km
e
Knickpoint
Sample site
EVI
0.2 0.5
1 km
f
Knickpoint
Sample site
SRTM 90 m
2400
1100
1 km
g
River profile C-07
elevation (m)
distance from mouth (km)
Contributing area
10.4 km^2
Knickpoint
Sample site
Slope
drainage area (m²)
ksn=51.3
θ =-0.88
ksn=102 ± 1.8
θ = 2
ksn=243
θ = 0.68
ksn=199
ksn=108 ± 0.97
θ = 4.7
θref = 0.45
Rift Shoulders
Escarpment
Slope (°)
Sample in order of increassing erosion
Slope distribution
Mean: 12.2
Median: 10.7
Mode: 2.20
Normalized frequency

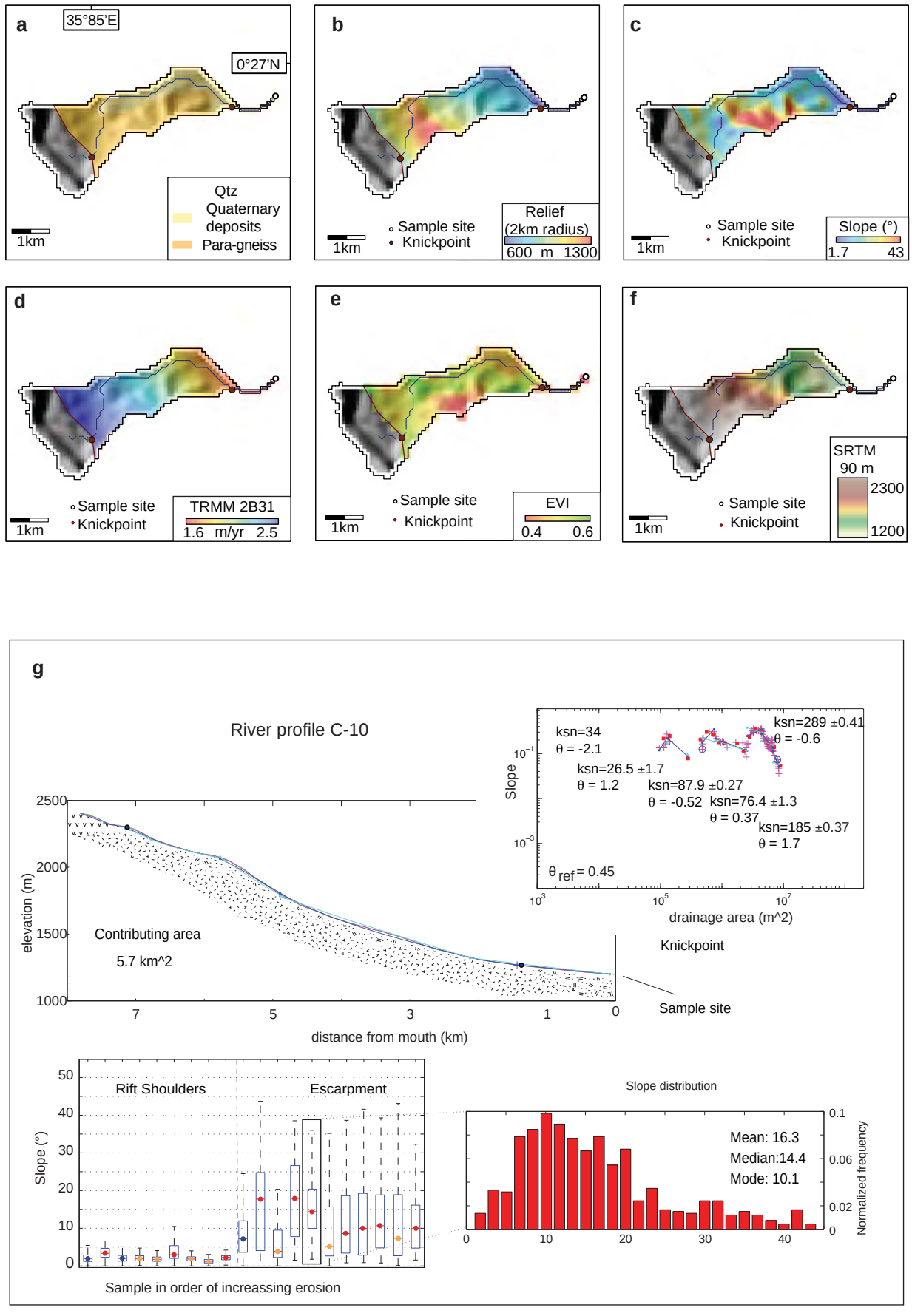
C-08


a
35°34'E
0°30'N
Qtz
Quaternary deposits
Para-gneiss
1km
b
Sample site
Knickpoint
Relief (2km radius)
90 m 1300
1km
c
Sample site
Knickpoint
Slope (°)
1.3 43
1km
d
Sample site
Knickpoint
TRMM 2B31
1.6 m/yr 2.5
1km
e
Sample site
Knickpoint
EVI
0.3 0.6
1km
f
Sample site
Knickpoint
SRTM 90 m
2600
1100
1km
g
River profile C-08
elevation (m)
distance from mouth (km)
Contributing area
6.8 km^2
Knickpoint
Sample site
ksn=95 0.11
θ = 0.11
ksn=261 ± 0.9
θ = 0.14
ksn=166 ± 0.16
θ = 0.77
ksn=82.9 ± 0.16
θ = 0.35
θref = 0.45
slope
drainage area (m^2)
Rift Shoulders
Escarpment
Slope (°)
Sample in order of increassing erosion
Slope distribution
Mean: 16.5
Median: 17.7
Mode: 1.32
Normalized frequency

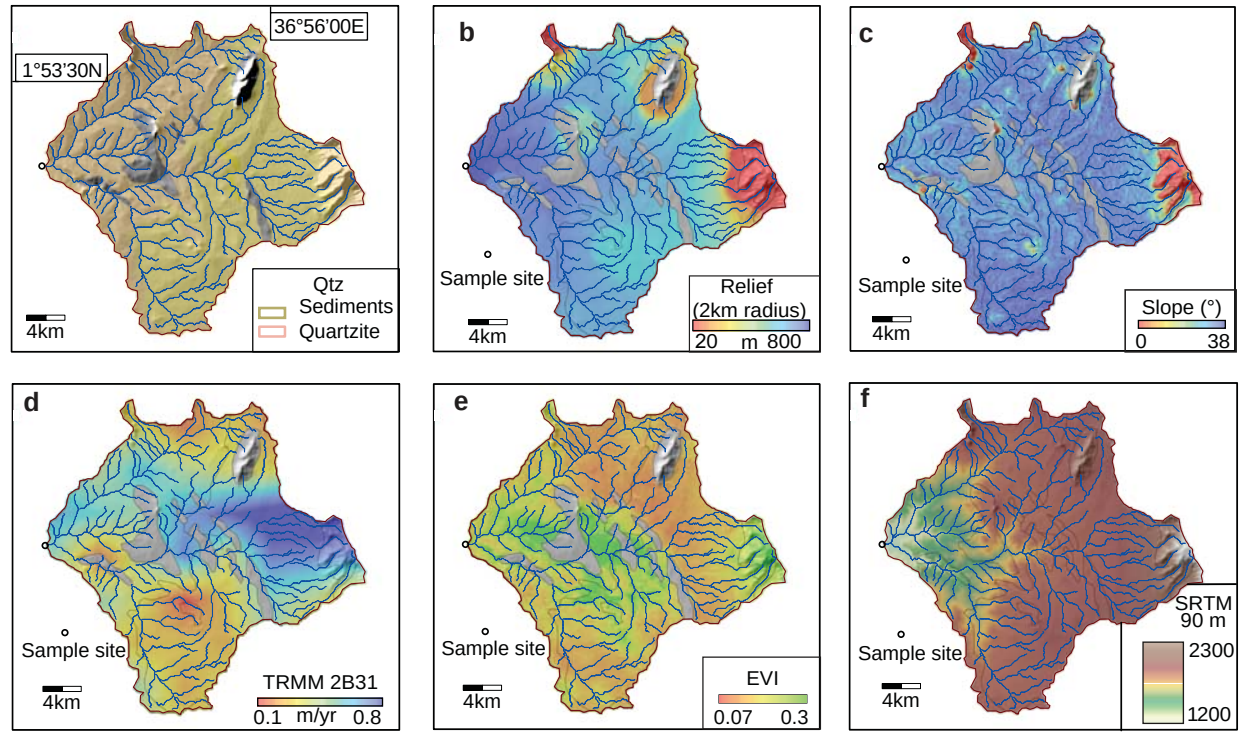
C-09

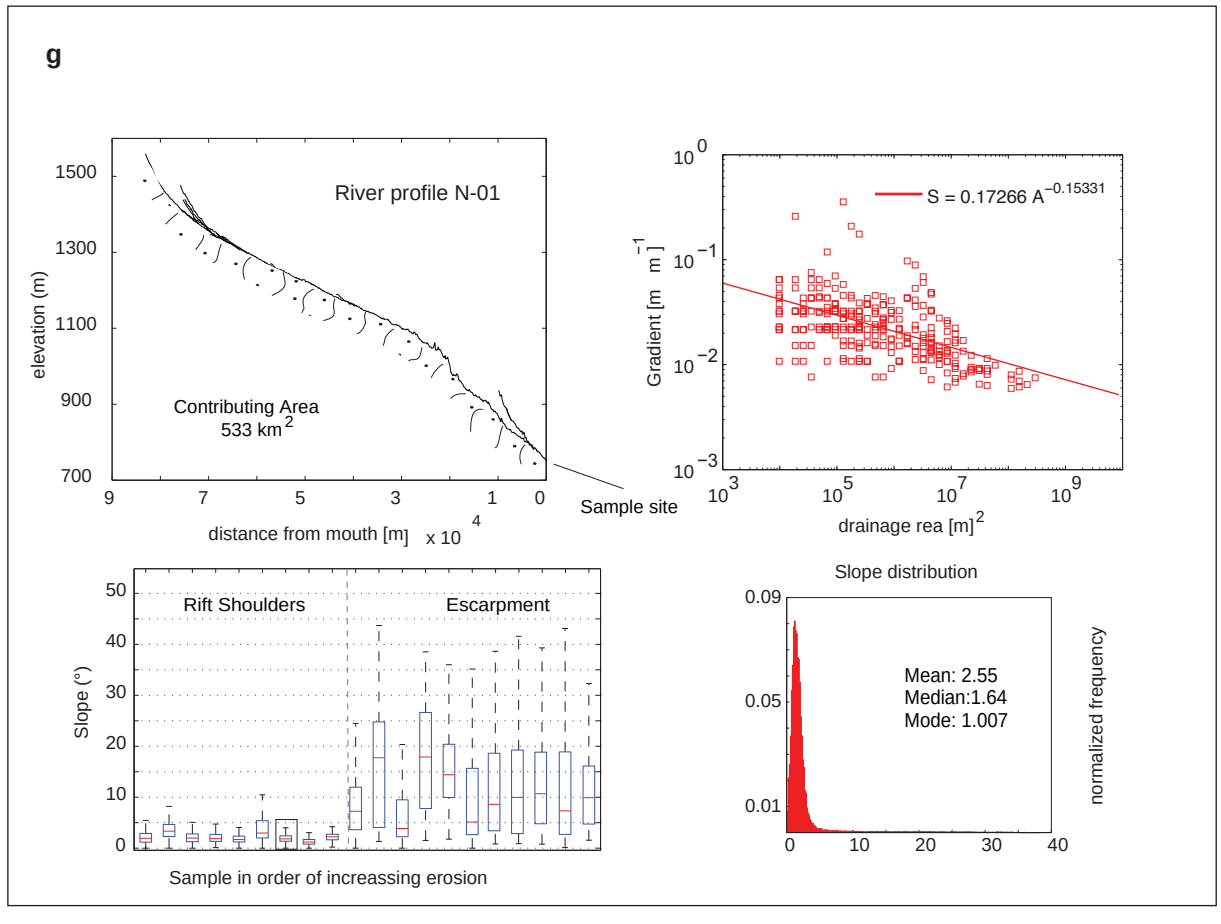

a
35°36'E
0°30'N
Qtz
Quaternary deposits
Para-gneiss
1km
b
Sample site
Knickpoint
Relief (2km radius)
200 m 1400
1km
c
Sample site
Knickpoint
Slope (°)
1.5 38
1km
d
Sample site
Knickpoint
TRMM 2B31
1.8 m/yr 2.1
1km
e
Sample site
Knickpoint
EVI
0.3 0.6
1km
f
Sample site
Knickpoint
SRTM 90 m
2700
1200
1km
g
River profile C-09
ksn=26.5 ±1.4
θ = 2.3
ksn=333 ±5.2
θ = 5.1
ksn=132 ±0.26
θ = -0.38
ksn=64.8 ±0.38
θ = 0.82
ksn=148 ±1.8
θ = 4.6
ksn=88.3 ±0.44
θ = 1.1
ksn=205 ±4.3
θ = 3.7
θ ref = 0.45
Slope
drainage area (m^2)
elevation (m)
Contributing area
6.4 km^2
Knickpoint
Sample site
distance from mouth (km)
Rift Shoulders
Escarpment
Slope (°)
Sample in order of increassing erosion
Slope distribution
Mean: 17.6
Median:17.8
Mode: 3.2
Normalized frequency

C-10

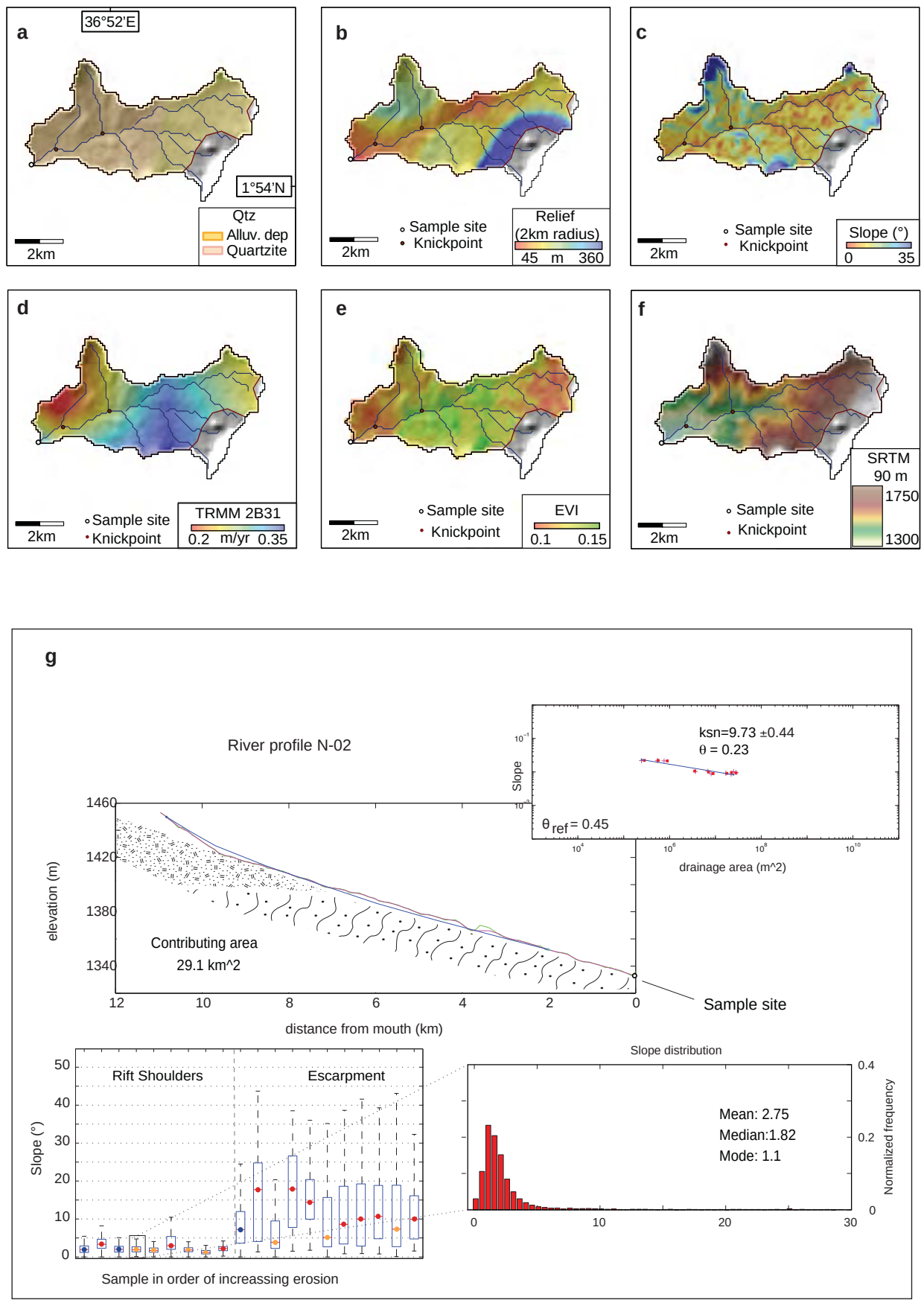

a
35°85'E
0°27'N
Qtz
Quaternary deposits
Para-gneiss
1km
b
Sample site
Knickpoint
Relief (2km radius)
600 m 1300
1km
c
Sample site
Knickpoint
Slope (°)
1.7 43
1km
d
Sample site
Knickpoint
TRMM 2B31
1.6 m/yr 2.5
1km
e
Sample site
Knickpoint
EVI
0.4 0.6
1km
f
Sample site
Knickpoint
SRTM 90 m
2300
1200
1km
g
River profile C-10
ksn=34
θ = -2.1
ksn=26.5 ±1.7
θ = 1.2
ksn=87.9 ±0.27
θ = -0.52
ksn=76.4 ±1.3
θ = 0.37
ksn=185 ±0.37
θ = 1.7
ksn=289 ±0.41
θ = -0.6
θ ref = 0.45
Slope
drainage area (m^2)
elevation (m)
Contributing area
5.7 km^2
Knickpoint
Sample site
distance from mouth (km)
Rift Shoulders
Escarpment
Slope (°)
Sample in order of increasing erosion
Slope distribution
Mean: 16.3
Median:14.4
Mode: 10.1
Normalized frequency

N-01

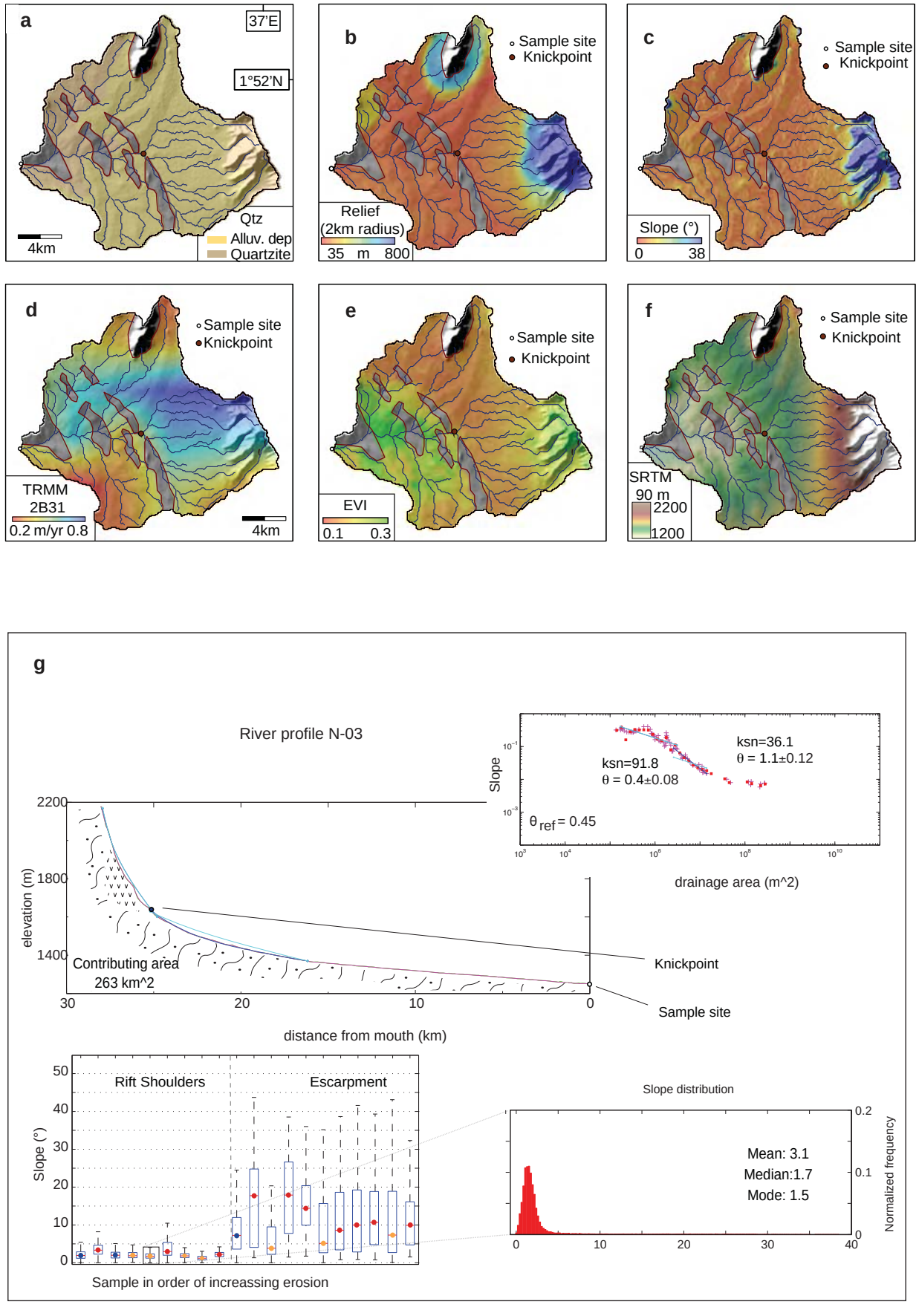

36°56'00E
1°53'30N
Qtz
Sediments
Quartzite
4km
b
Sample site
Relief
(2km radius)
20 m 800
c
Slope (°)
0 38
d
TRMM 2B31
0.1 m/yr 0.8
e
EVI
0.07 0.3
f
SRTM
90 m
2300
1200


g
River profile N-01
Contributing Area
533 km2
elevation (m)
distance from mouth [m] x 10^4
Sample site
S = 0.17266 A^-0.15331
Gradient [m m^-1]
drainage rea [m]^2
Rift Shoulders
Escarpment
Slope (°)
Sample in order of increassing erosion
Slope distribution
Mean: 2.55
Median:1.64
Mode: 1.007
normalized frequency

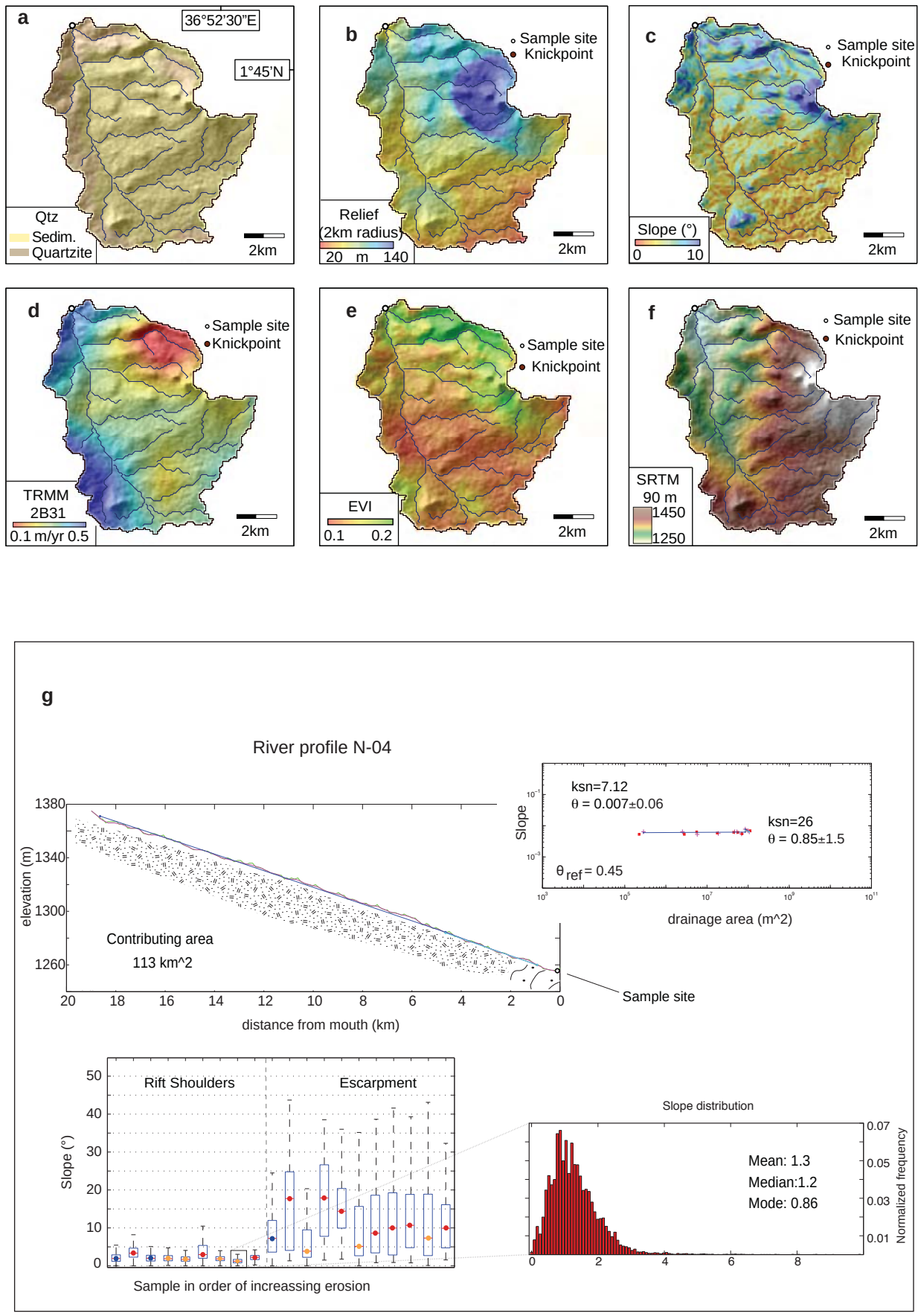
N-02


a
36°52'E
1°54'N
2km
Qtz
Alluv. dep
Quartzite
b
2km
Sample site
Knickpoint
Relief
(2km radius)
45 m 360
c
2km
Sample site
Knickpoint
Slope (°)
0 35
d
2km
Sample site
Knickpoint
TRMM 2B31
0.2 m/yr 0.35
e
2km
Sample site
Knickpoint
EVI
0.1 0.15
f
2km
Sample site
Knickpoint
SRTM
90 m
1750
1300
g
River profile N-02
elevation (m)
1460
1420
1380
1340
Contributing area
29.1 km^2
12 10 8 6 4 2 0
distance from mouth (km)
Sample site
ksn=9.73 ±0.44
θ = 0.23
θ ref = 0.45
Slope
drainage area (m^2)
Rift Shoulders
Escarpment
Slope (°)
50 40 30 20 10 0
Sample in order of increassing erosion
Slope distribution
Mean: 2.75
Median:1.82
Mode: 1.1
Normalized frequency
0.4 0.2 0
0 10 20 30

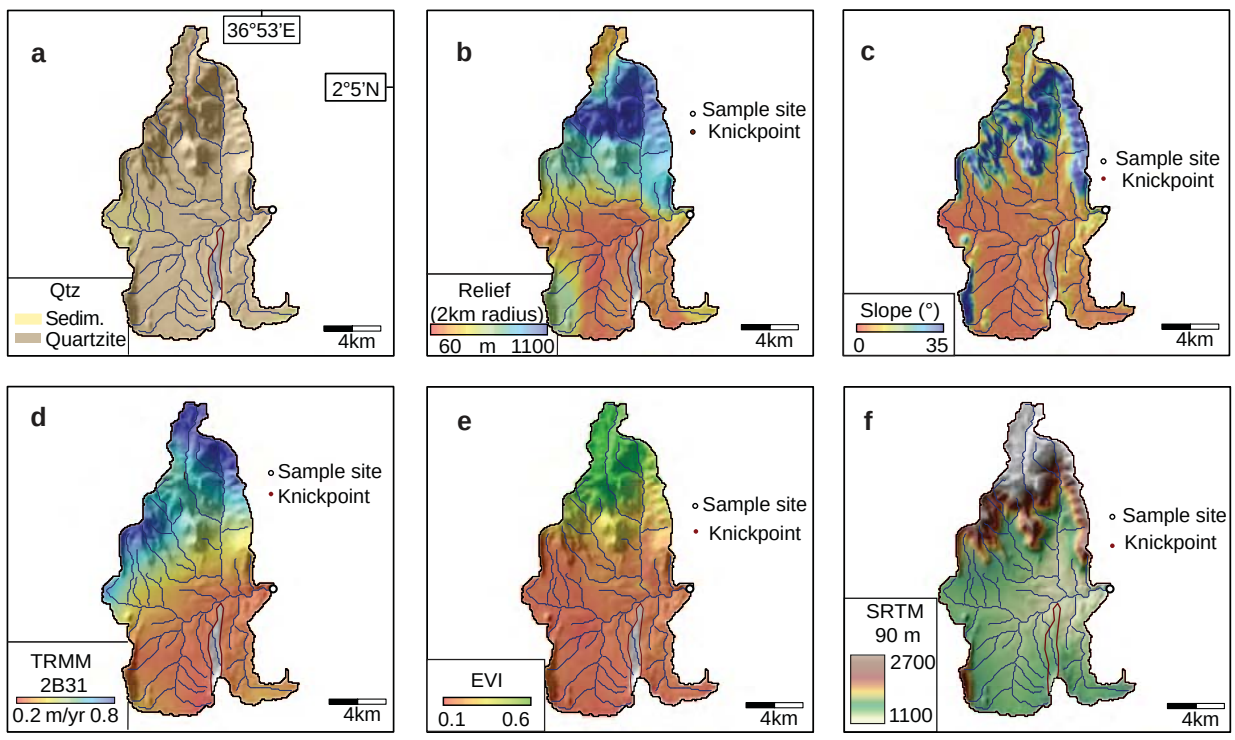
N-03

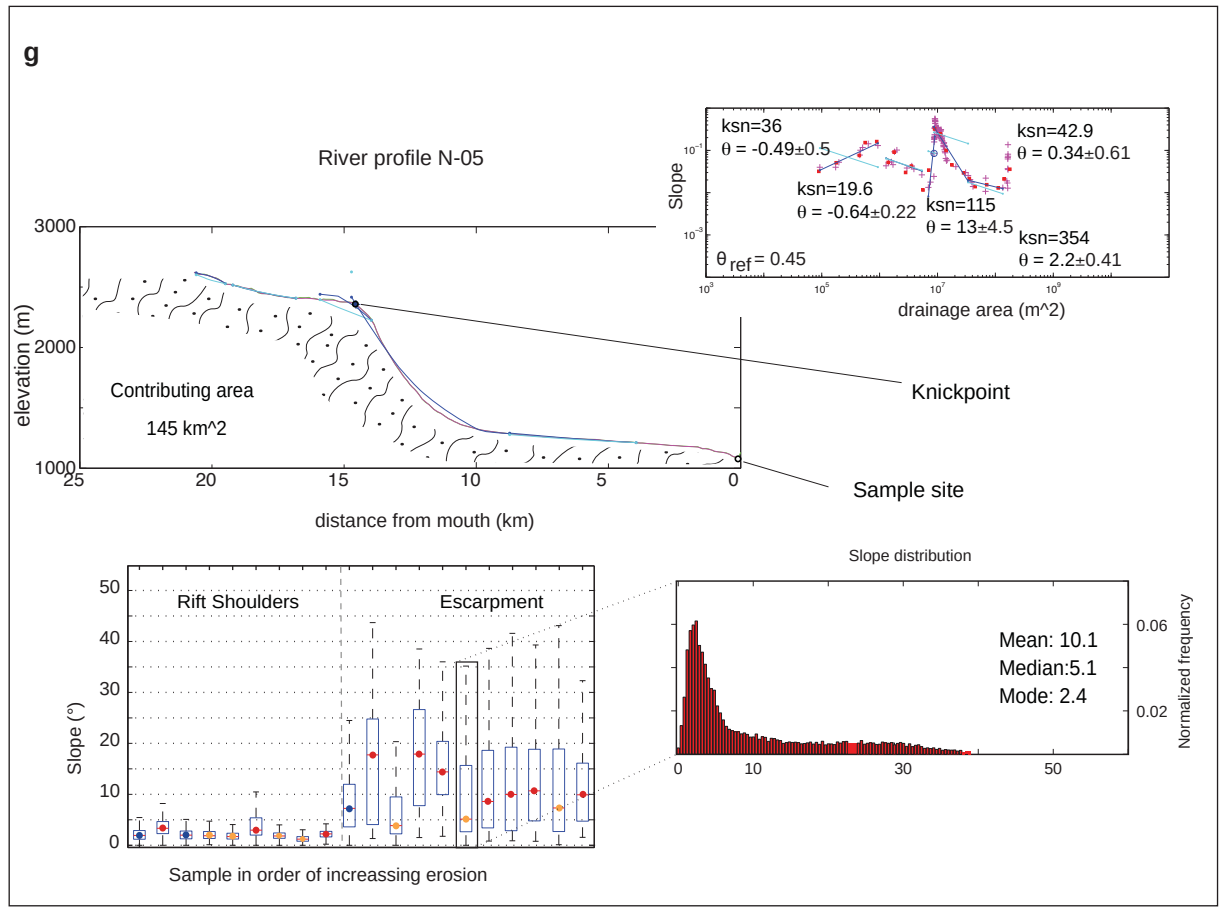

a
37'E
1°52'N
Qtz
Alluv. dep
Quartzite
4km
b
Sample site
Knickpoint
Relief
(2km radius)
35 m 800
c
Sample site
Knickpoint
Slope (°)
0 38
d
Sample site
Knickpoint
TRMM
2B31
0.2 m/yr 0.8
4km
e
Sample site
Knickpoint
EVI
0.1 0.3
f
Sample site
Knickpoint
SRTM
90 m
2200
1200
g
River profile N-03
elevation (m)
2200
1800
1400
Contributing area
263 km^2
30
20
10
0
distance from mouth (km)
Knickpoint
Sample site
Slope
ksn=91.8
θ = 0.4±0.08
ksn=36.1
θ = 1.1±0.12
θ ref = 0.45
drainage area (m^2)
Rift Shoulders
Escarpment
Slope (°)
Sample in order of increassing erosion
Slope distribution
Mean: 3.1
Median:1.7
Mode: 1.5
Normalized frequency

N-04

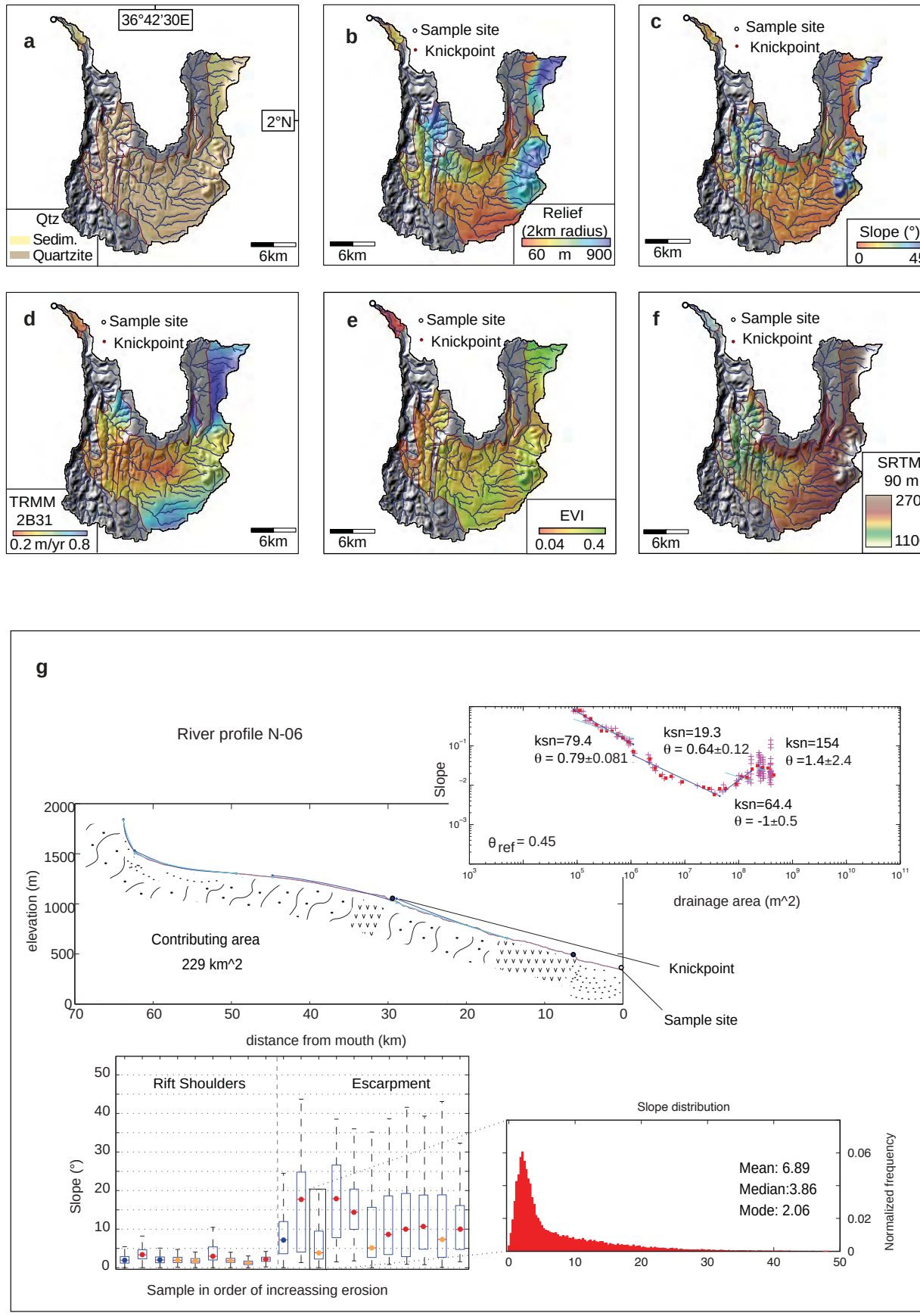

a
36°52'30"E
1°45'N
Qtz
Sedim.
Quartzite
2km
b
Sample site
Knickpoint
Relief
(2km radius)
20 m 140
2km
c
Sample site
Knickpoint
Slope (°)
0 10
2km
d
Sample site
Knickpoint
TRMM
2B31
0.1 m/yr 0.5
2km
e
Sample site
Knickpoint
EVI
0.1 0.2
2km
f
Sample site
Knickpoint
SRTM
90 m
1450
1250
2km
g
River profile N-04
elevation (m)
1380
1340
1300
1260
Contributing area
113 km^2
20 18 16 14 12 10 8 6 4 2 0
distance from mouth (km)
Sample site
Slope
ksn=7.12
θ = 0.007±0.06
ksn=26
θ = 0.85±1.5
θ ref = 0.45
drainage area (m^2)
Rift Shoulders
Escarpment
Slope (°)
0 10 20 30 40 50
Sample in order of increassing erosion
Slope distribution
Mean: 1.3
Median:1.2
Mode: 0.86
0 2 4 6 8
0.01 0.03 0.05 0.07
Normalized frequency

N-05

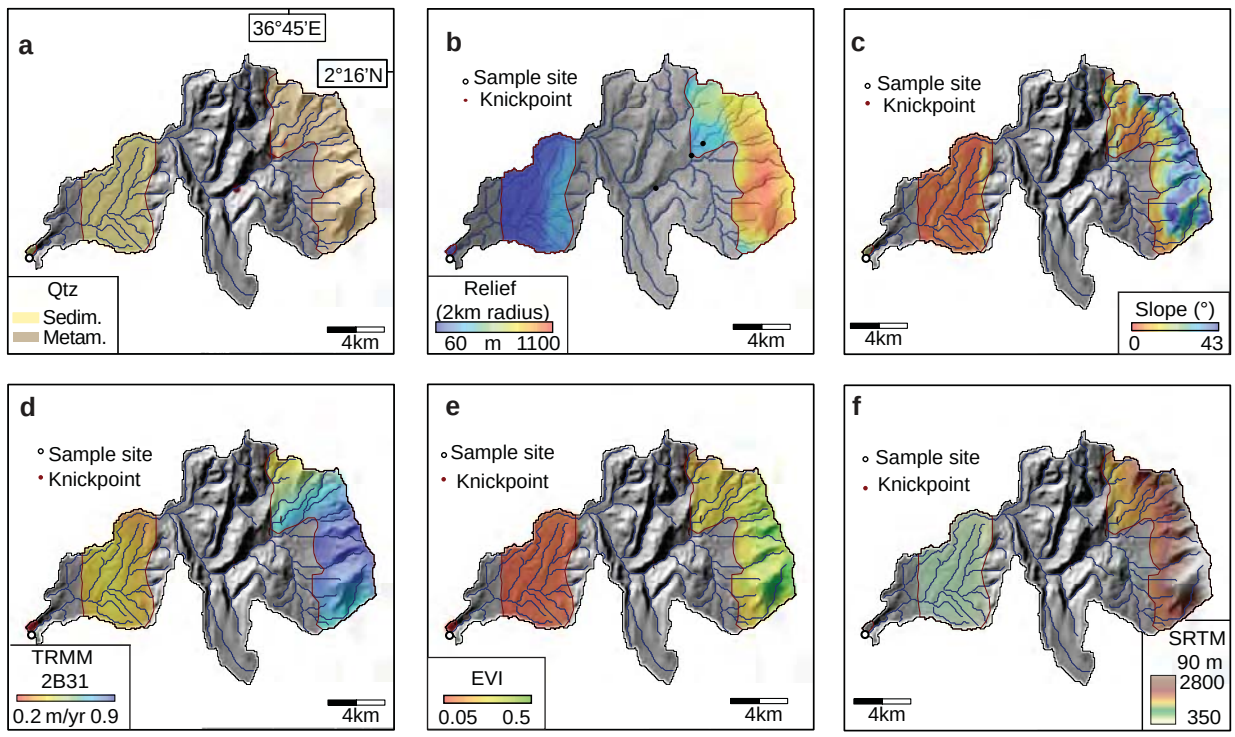

a
36°53'E
2°5'N
Qtz
Sedim.
Quartzite
4km
b
Sample site
Knickpoint
Relief
(2km radius)
60 m 1100
4km
c
Sample site
Knickpoint
Slope (°)
0 35
4km
d
Sample site
Knickpoint
TRMM
2B31
0.2 m/yr 0.8
4km
e
Sample site
Knickpoint
EVI
0.1 0.6
4km
f
Sample site
Knickpoint
SRTM
90 m
2700
1100
4km

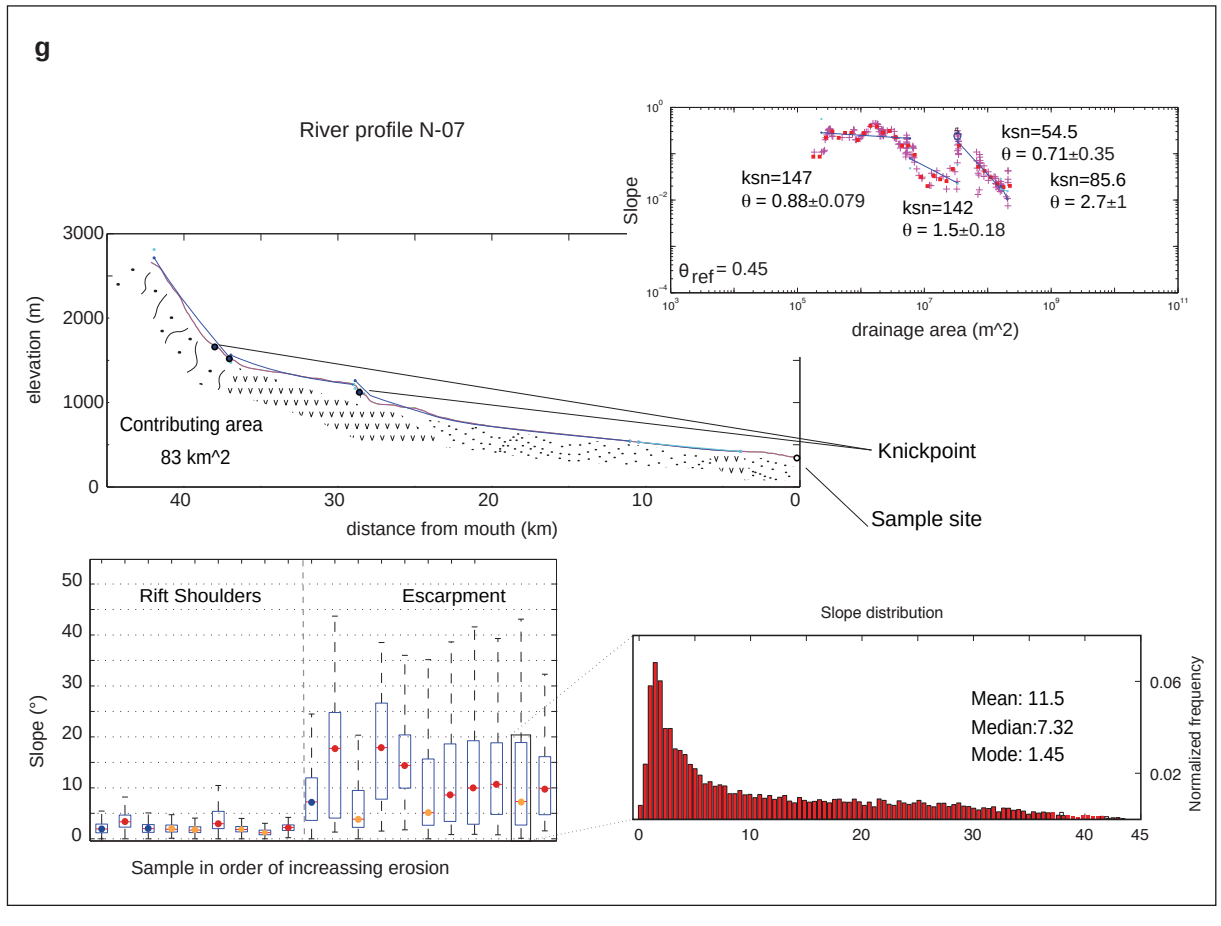

g
River profile N-05
elevation (m)
3000
2000
1000
Contributing area
145 km^2
25 20 15 10 5 0
distance from mouth (km)
Knickpoint
Sample site
ksn=36
θ = -0.49±0.5
ksn=19.6
θ = -0.64±0.22
ksn=115
θ = 13±4.5
ksn=42.9
θ = 0.34±0.61
ksn=354
θ = 2.2±0.41
θ ref = 0.45
Slope
drainage area (m^2)
Rift Shoulders
Escarpment
Slope (°)
Sample in order of increassing erosion
Slope distribution
Mean: 10.1
Median:5.1
Mode: 2.4
Normalized frequency
0.06
0.02
0 10 30 50

N-06

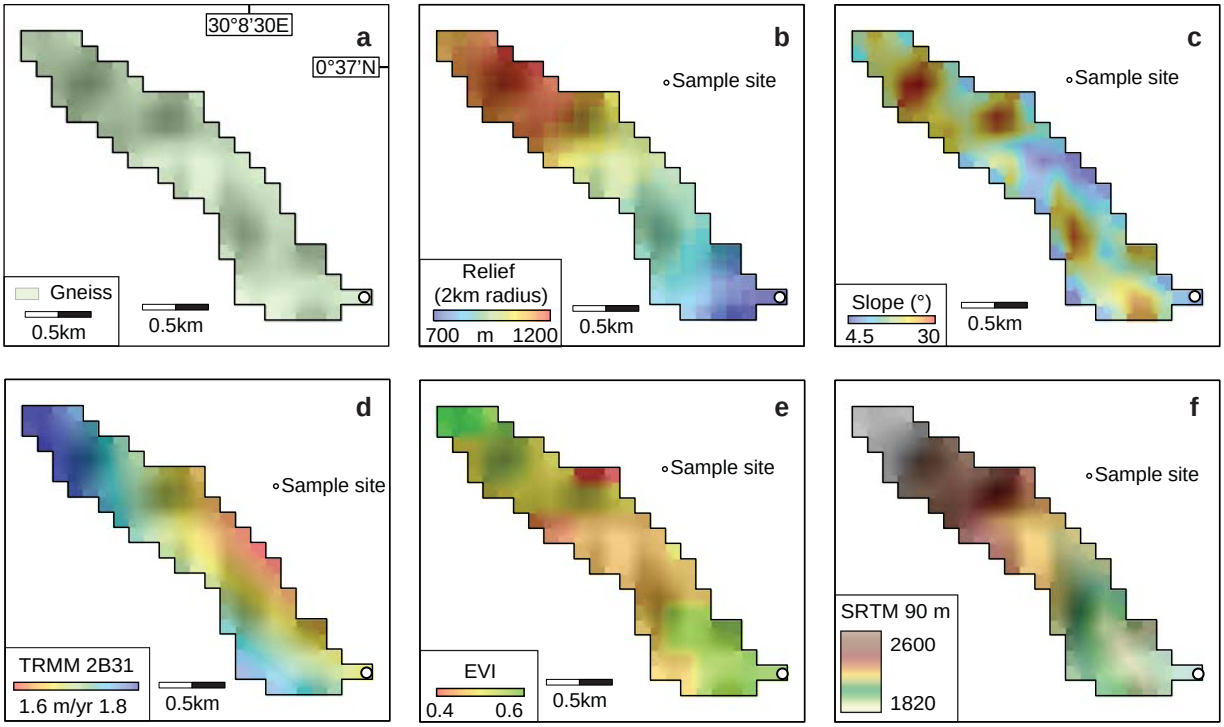

a
36°42'30E
2°N
Qtz
Sedim.
Quartzite
6km
b
Sample site
Knickpoint
Relief
(2km radius)
60 m 900
6km
c
Sample site
Knickpoint
Slope (°)
0 45
6km
d
Sample site
Knickpoint
TRMM
2B31
0.2 m/yr 0.8
6km
e
Sample site
Knickpoint
EVI
0.04 0.4
6km
f
Sample site
Knickpoint
SRTM
90 m
2700
1100
6km
g
River profile N-06
ksn=79.4
θ = 0.79±0.081
ksn=19.3
θ = 0.64±0.12
ksn=154
θ =1.4±2.4
ksn=64.4
θ = -1±0.5
θ ref = 0.45
Slope
drainage area (m^2)
elevation (m)
Contributing area
229 km^2
Knickpoint
Sample site
distance from mouth (km)
Rift Shoulders
Escarpment
Slope (°)
Sample in order of increassing erosion
Slope distribution
Mean: 6.89
Median:3.86
Mode: 2.06
Normalized frequency

N-07


a
36°45'E
2°16'N
Qtz
Sedim.
Metam.
4km
b
Sample site
Knickpoint
Relief
(2km radius)
60 m 1100
4km
c
Sample site
Knickpoint
Slope (°)
0 43
4km
d
Sample site
Knickpoint
TRMM
2B31
0.2 m/yr 0.9
4km
e
Sample site
Knickpoint
EVI
0.05 0.5
4km
f
Sample site
Knickpoint
SRTM
90 m
2800
350
4km


g
River profile N-07
elevation (m)
distance from mouth (km)
Contributing area
83 km^2
Knickpoint
Sample site
Slope
drainage area (m^2)
ksn=147
θ = 0.88±0.079
ksn=142
θ = 1.5±0.18
ksn=54.5
θ = 0.71±0.35
ksn=85.6
θ = 2.7±1
θ ref = 0.45
Rift Shoulders
Escarpment
Slope (°)
Sample in order of increassing erosion
Slope distribution
Mean: 11.5
Median:7.32
Mode: 1.45
Normalized frequency

294



295

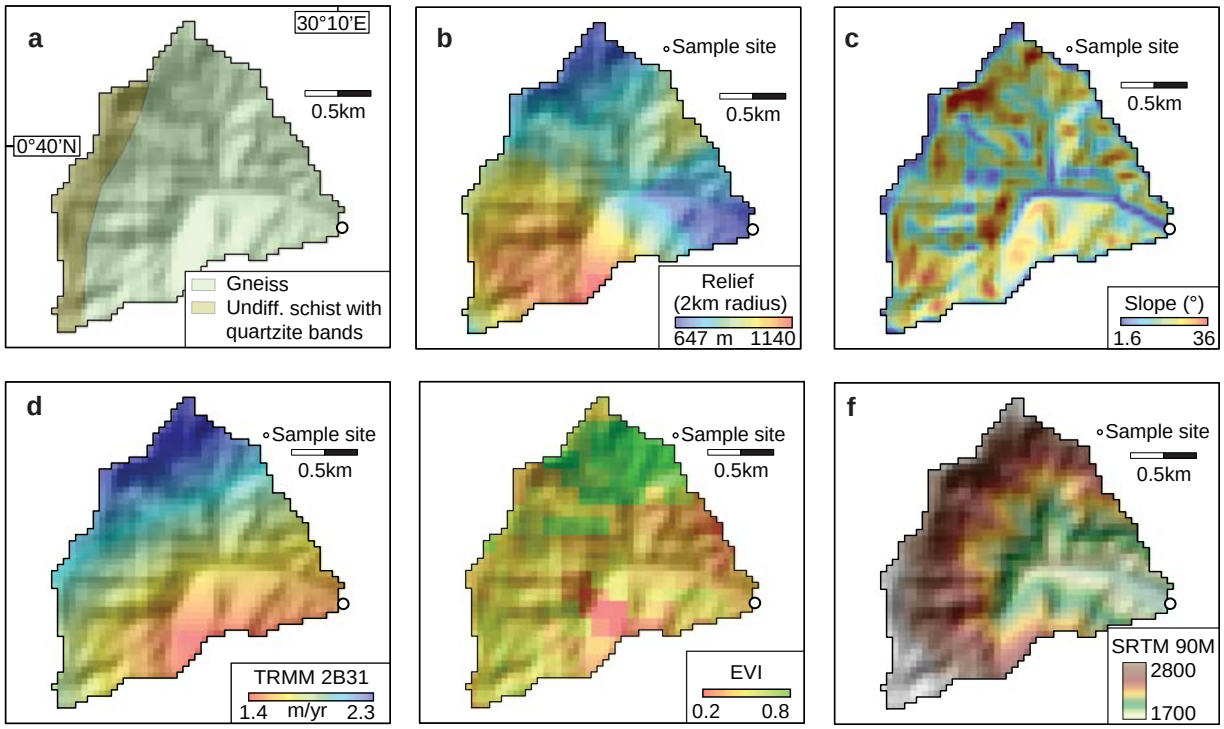
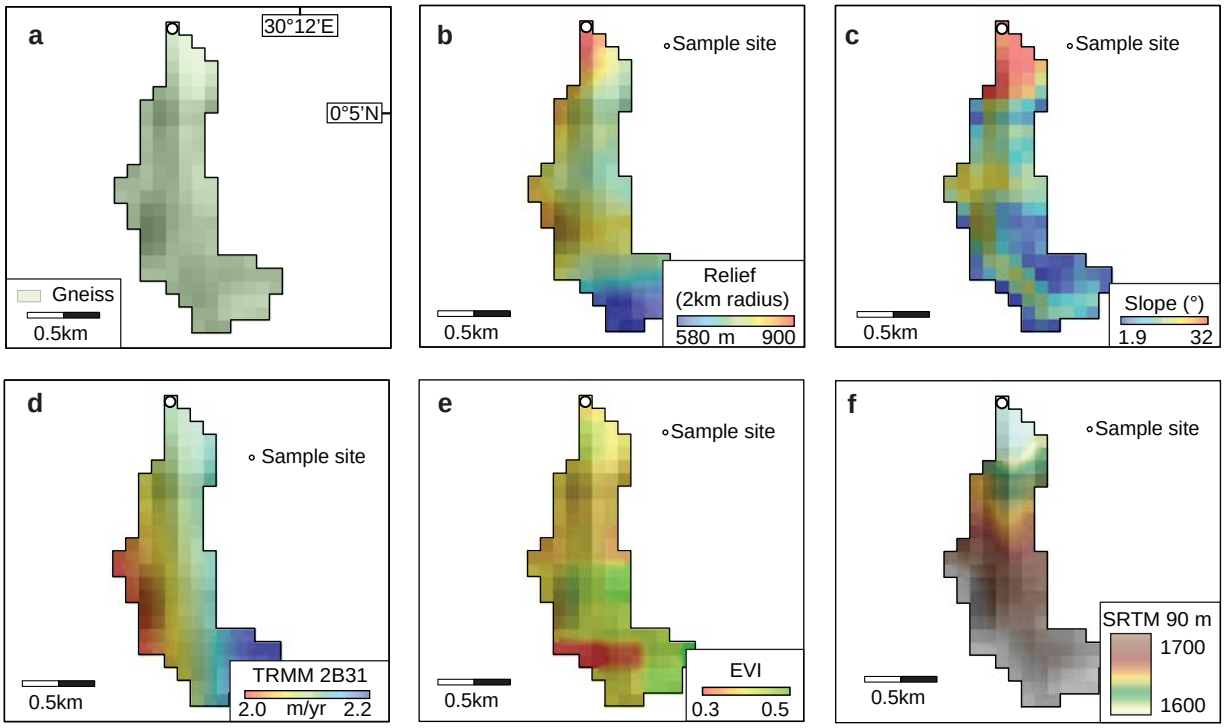
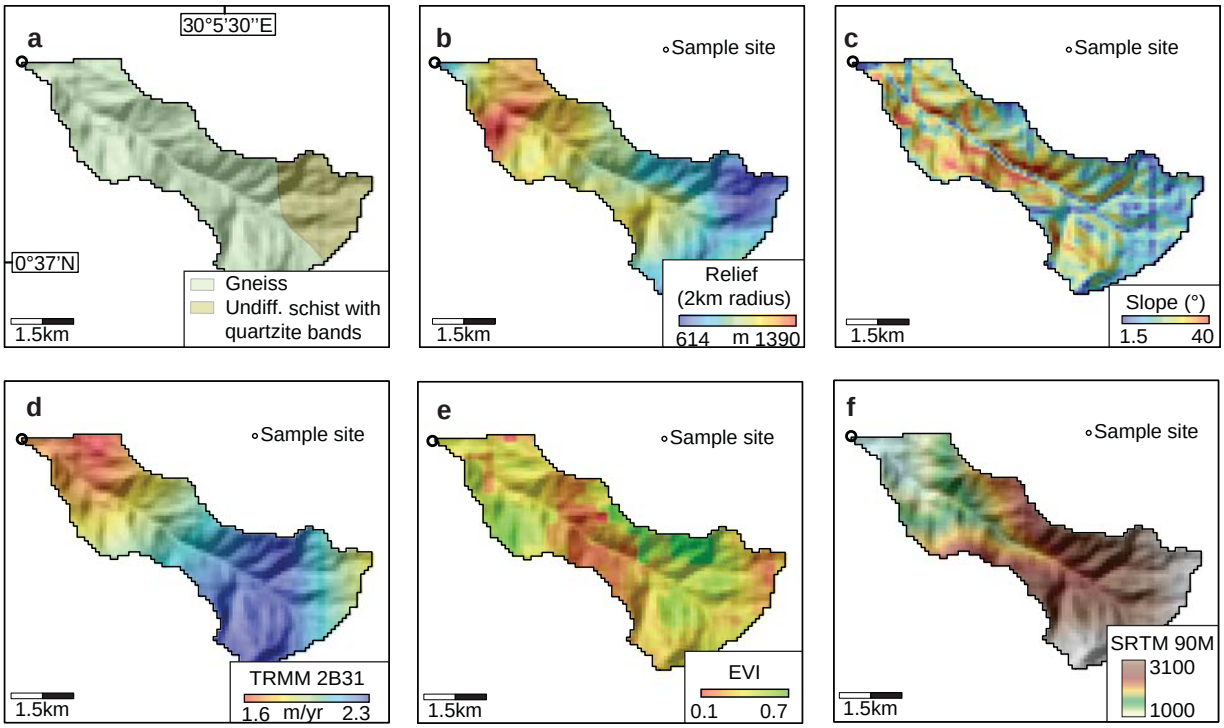


Figure DR2.

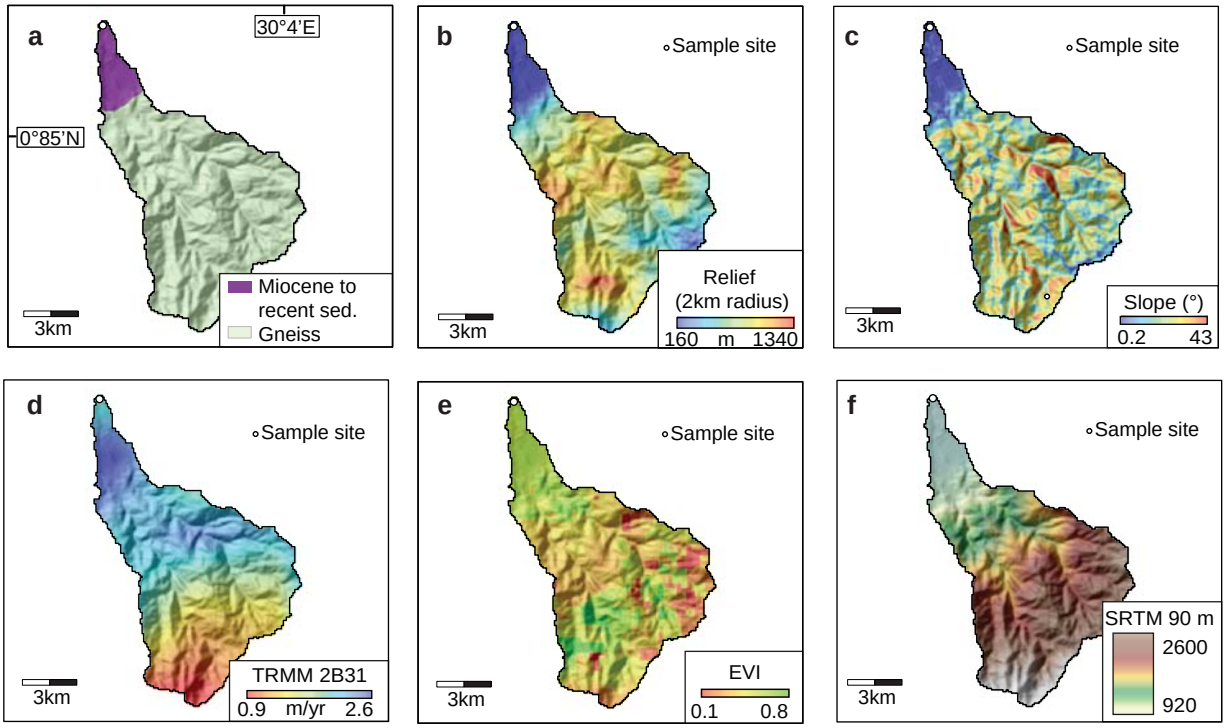
300


a
30°12'E
0°5'N
Gneiss
0.5km
b
Sample site
Relief
(2km radius)
580 m 900
0.5km
c
Sample site
Slope (°)
1.9 32
0.5km
d
Sample site
TRMM 2B31
2.0 m/yr 2.2
0.5km
e
Sample site
EVI
0.3 0.5
0.5km
f
Sample site
SRTM 90 m
1700
1600
0.5km

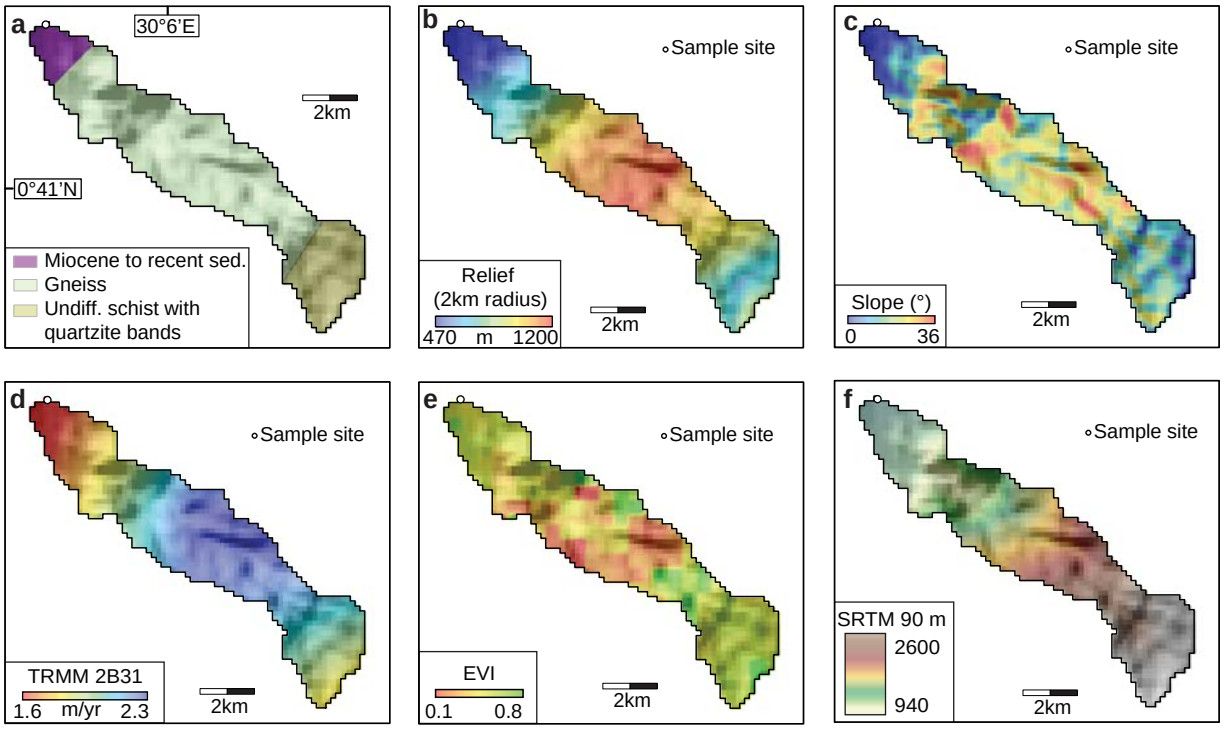
311


a
30°5'30"E
0°37'N
Gneiss
Undiff. schist with
quartzite bands
1.5km
b
Sample site
Relief
(2km radius)
614 m 1390
1.5km
c
Sample site
Slope (°)
1.5 40
1.5km
d
Sample site
TRMM 2B31
1.6 m/yr 2.3
1.5km
e
Sample site
EVI
0.1 0.7
1.5km
f
Sample site
SRTM 90M
3100
1000
1.5km

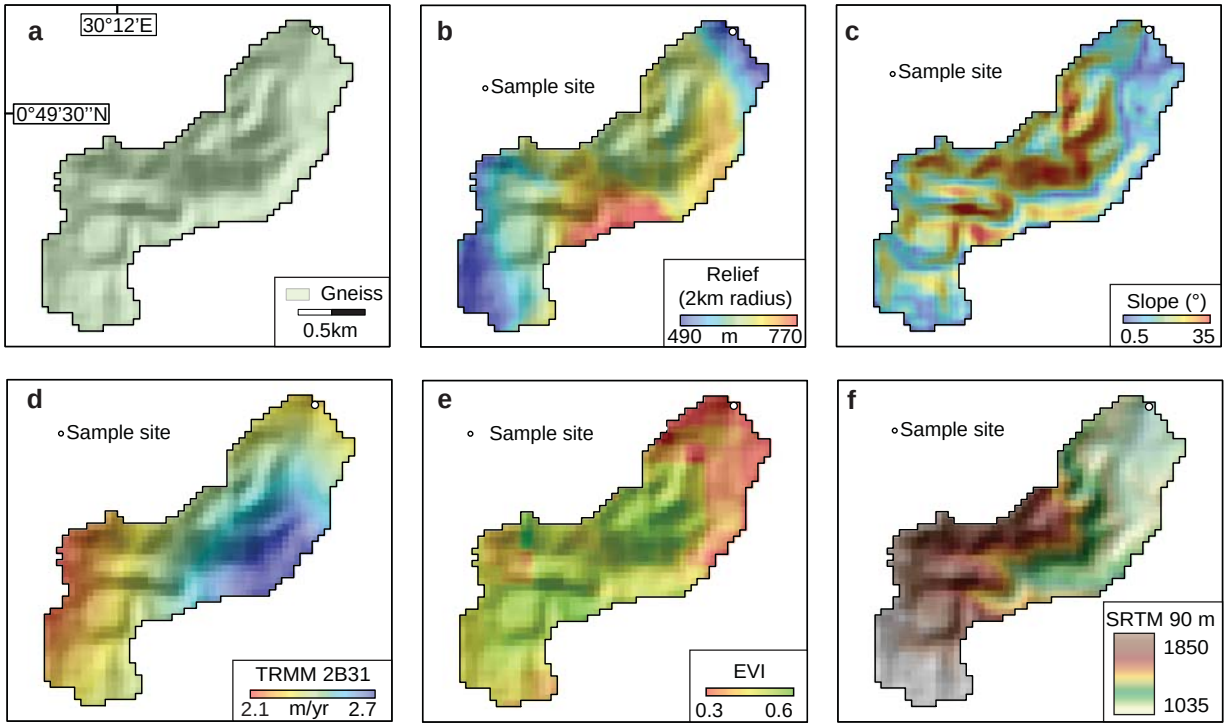
316


a
30°4'E
0°85'N
Miocene to recent sed.
Gneiss
3km
b
Sample site
Relief (2km radius)
160 m 1340
3km
c
Sample site
Slope (°)
0.2 43
3km
d
Sample site
TRMM 2B31
0.9 m/yr 2.6
3km
e
Sample site
EVI
0.1 0.8
3km
f
Sample site
SRTM 90 m
2600
920
3km

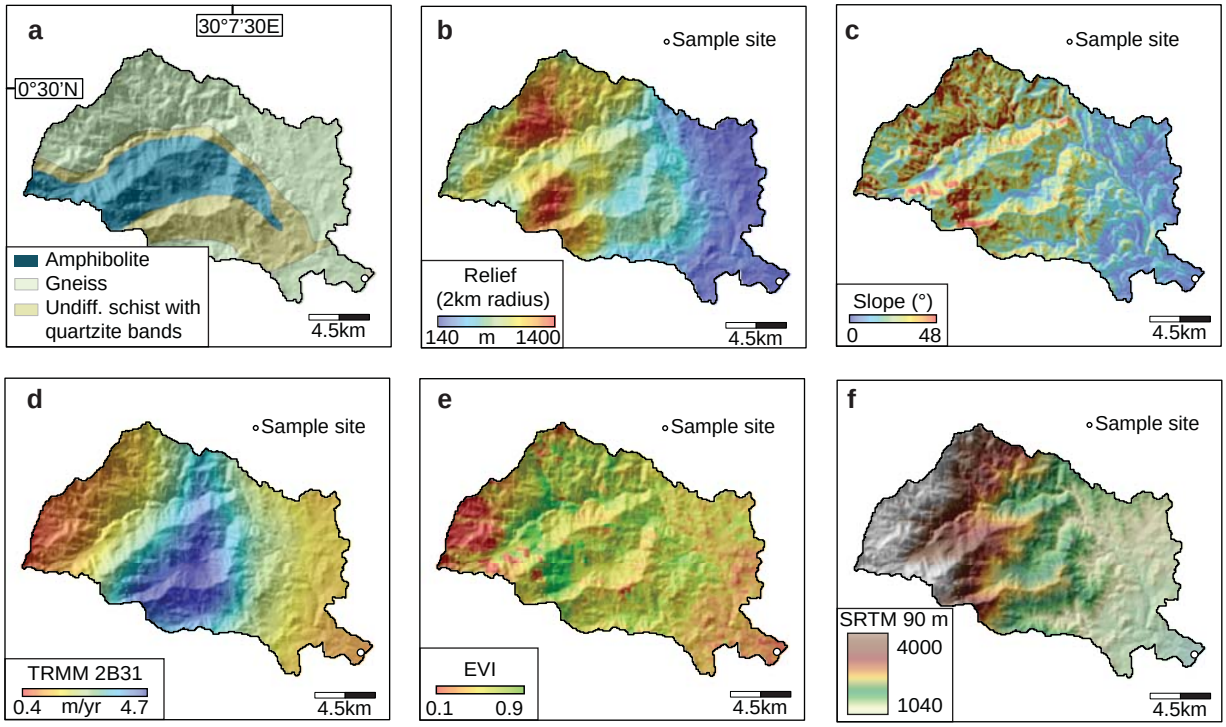
321


a
30°6'E
2km
0°41'N
Miocene to recent sed.
Gneiss
Undiff. schist with quartzite bands
b
Sample site
Relief (2km radius)
470 m 1200
2km
c
Sample site
Slope (°)
0 36
2km
d
Sample site
TRMM 2B31
1.6 m/yr 2.3
2km
e
Sample site
EVI
0.1 0.8
2km
f
Sample site
SRTM 90 m
2600
940
2km

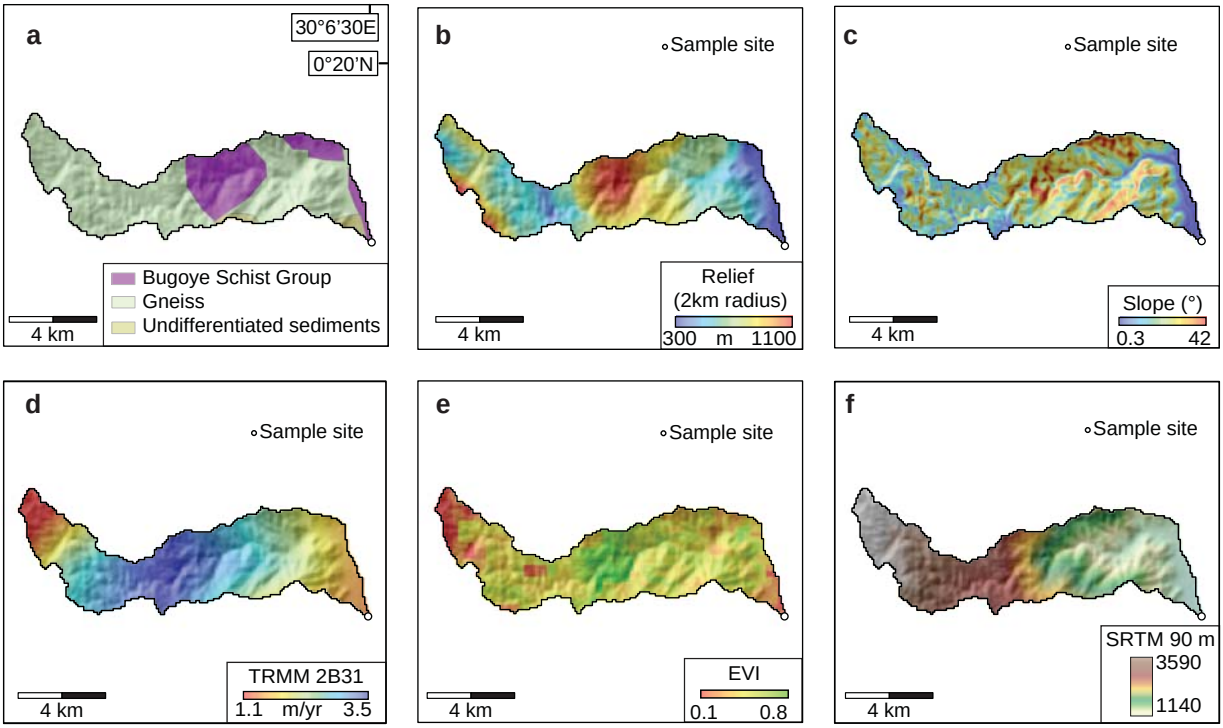
337


a
30°12'E
0°49'30"N
Gneiss
0.5km
b
Sample site
Relief
(2km radius)
490 m 770
c
Sample site
Slope (°)
0.5 35
d
Sample site
TRMM 2B31
2.1 m/yr 2.7
e
Sample site
EVI
0.3 0.6
f
Sample site
SRTM 90 m
1850
1035

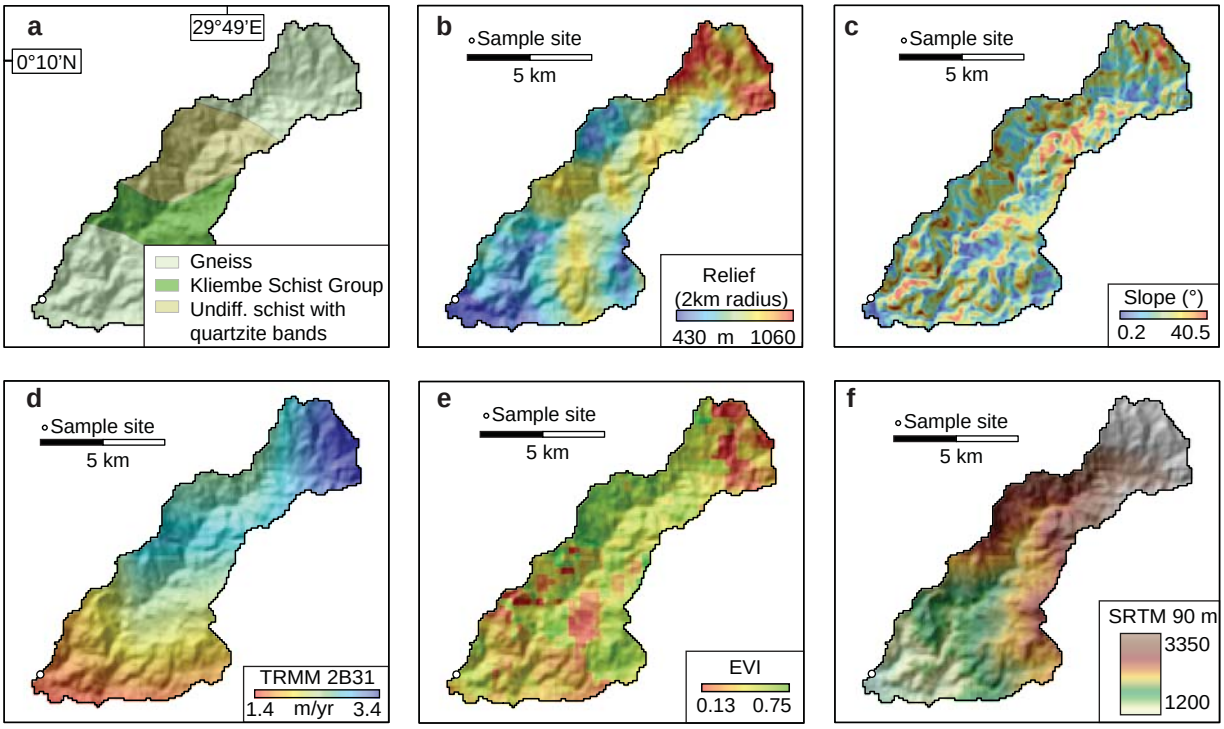
359

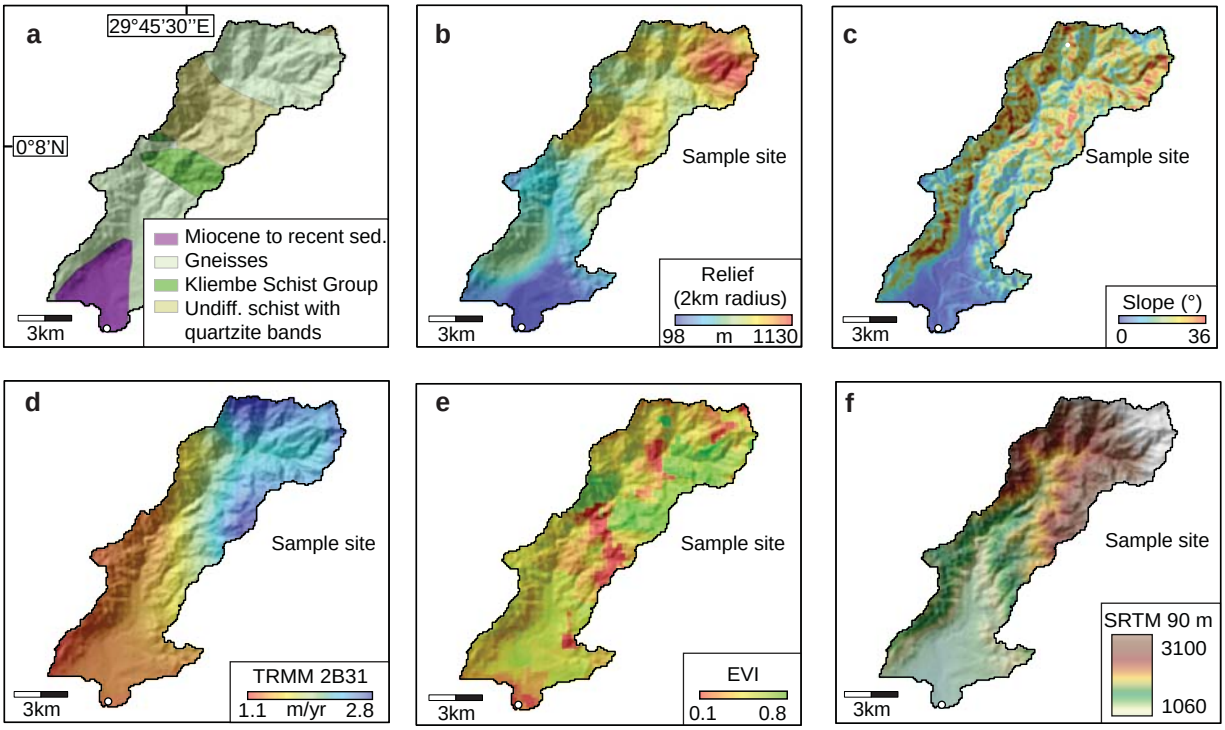

a
30°7'30E
0°30'N
Amphibolite
Gneiss
Undiff. schist with
quartzite bands
4.5km
b
Sample site
Relief
(2km radius)
140 m 1400
4.5km
c
Sample site
Slope (°)
0 48
4.5km
d
Sample site
TRMM 2B31
0.4 m/yr 4.7
4.5km
e
Sample site
EVI
0.1 0.9
4.5km
f
Sample site
SRTM 90 m
4000
1040
4.5km

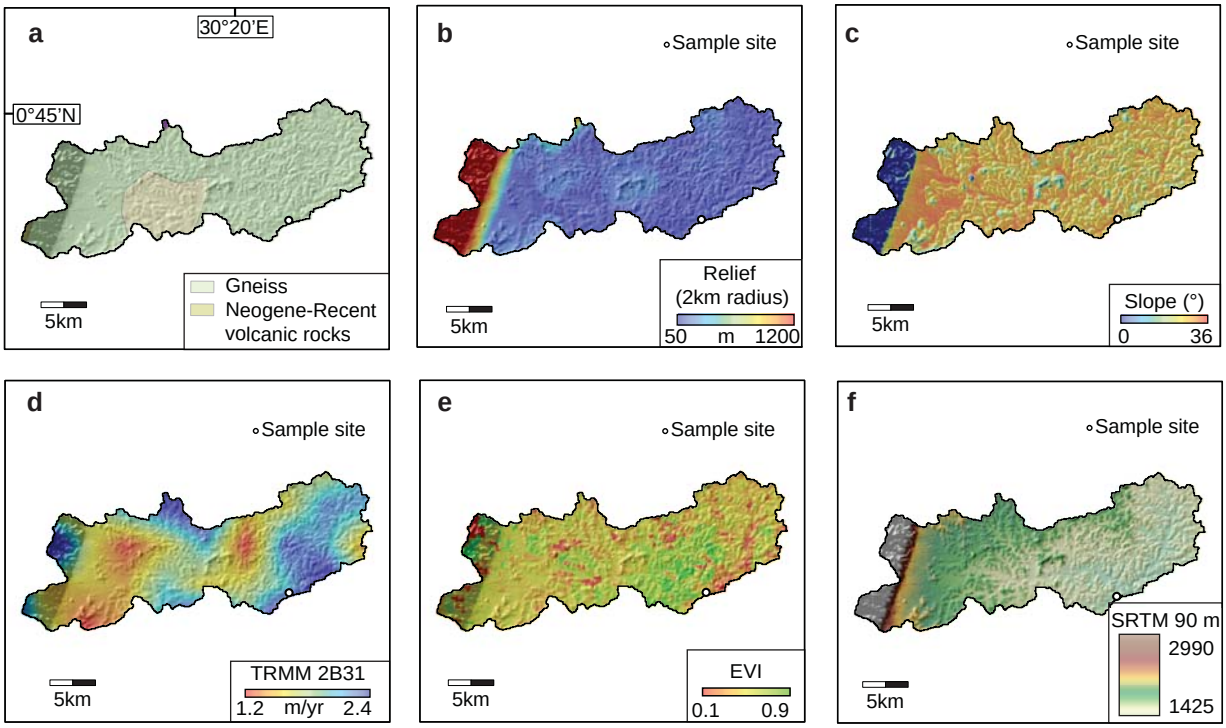
375


a
30°6'30E
0°20'N
Bugoye Schist Group
Gneiss
Undifferentiated sediments
4 km
b
Sample site
Relief
(2km radius)
300 m 1100
4 km
c
Sample site
Slope (°)
0.3 42
4 km
d
Sample site
TRMM 2B31
1.1 m/yr 3.5
4 km
e
Sample site
EVI
0.1 0.8
4 km
f
Sample site
SRTM 90 m
3590
1140
4 km

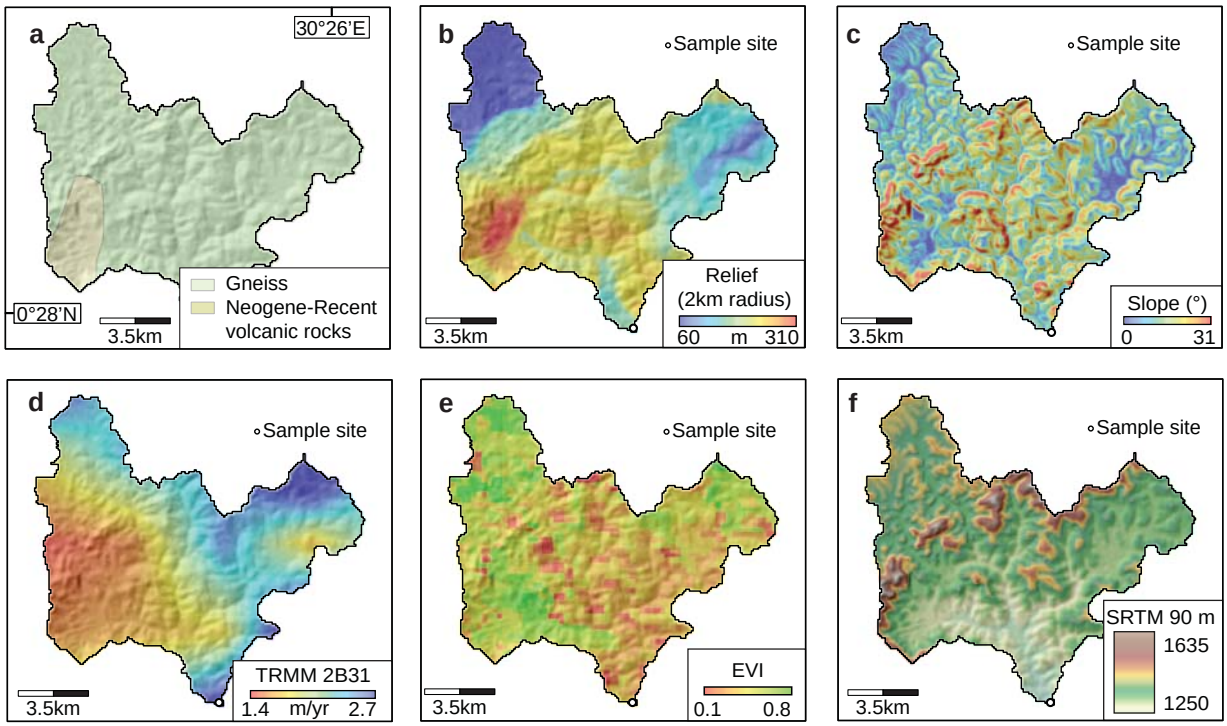
398


a
29°49'E
0°10'N
Gneiss
Kliembe Schist Group
Undiff. schist with
quartzite bands
b
Sample site
5 km
Relief
(2km radius)
430 m 1060
c
Sample site
5 km
Slope (°)
0.2 40.5
d
Sample site
5 km
TRMM 2B31
1.4 m/yr 3.4
e
Sample site
5 km
EVI
0.13 0.75
f
Sample site
5 km
SRTM 90 m
3350
1200

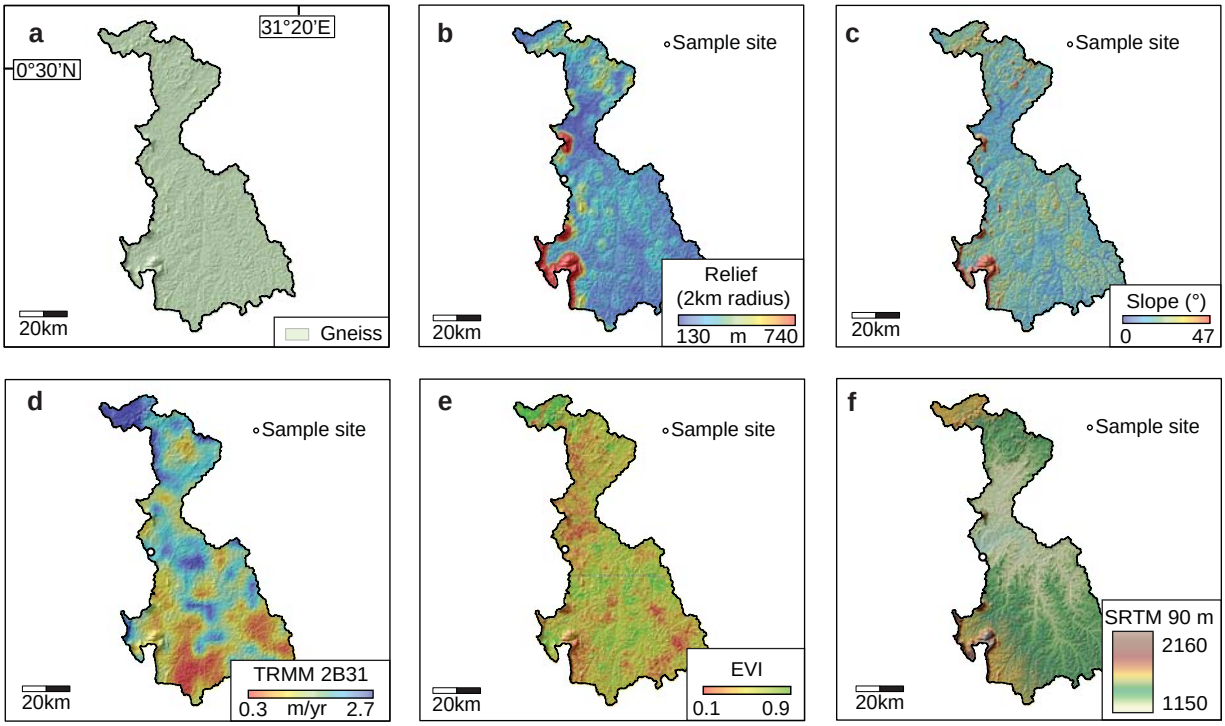

a
29°45'30''E
0°8'N
Miocene to recent sed.
Gneisses
Kliembe Schist Group
Undiff. schist with quartzite bands
3km
b
Sample site
Relief (2km radius)
98 m 1130
3km
c
Sample site
Slope (°)
0 36
3km
d
Sample site
TRMM 2B31
1.1 m/yr 2.8
3km
e
Sample site
EVI
0.1 0.8
3km
f
Sample site
SRTM 90 m
3100
1060
3km

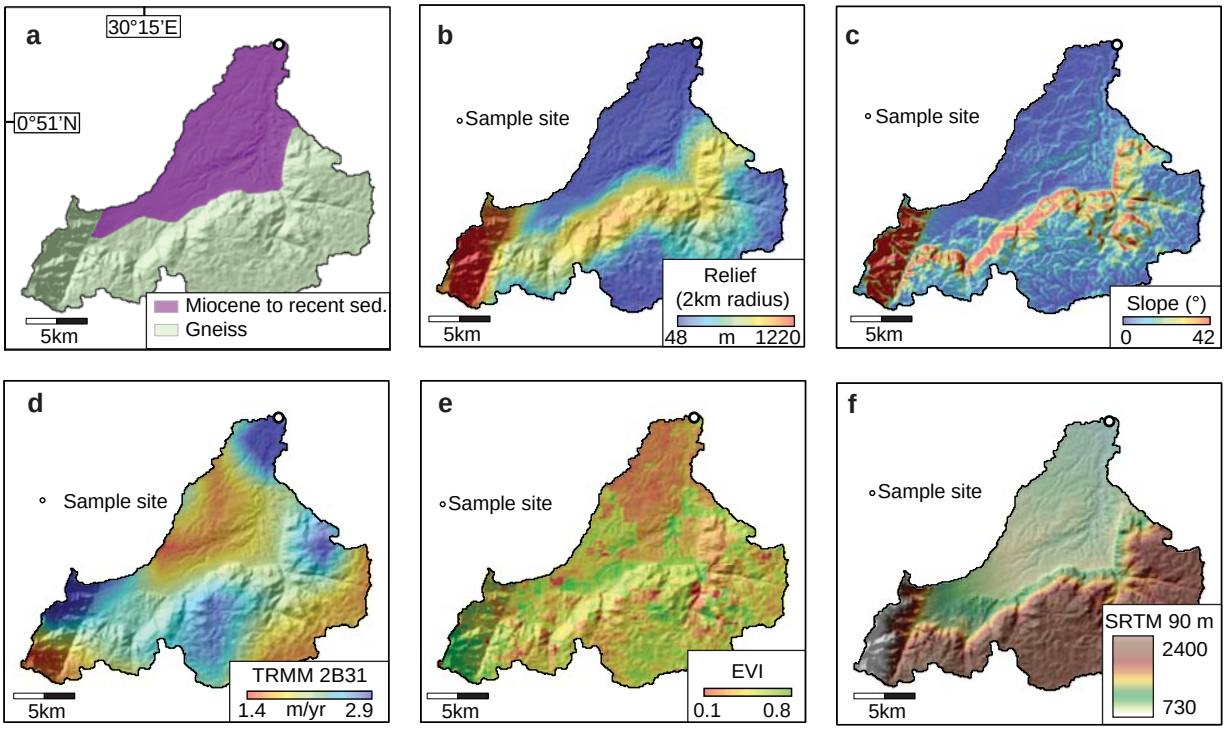

a
30°20'E
0°45'N
Gneiss
Neogene-Recent volcanic rocks
5km
b
Sample site
Relief (2km radius)
50 m 1200
5km
c
Sample site
Slope (°)
0 36
5km
d
Sample site
TRMM 2B31
1.2 m/yr 2.4
5km
e
Sample site
EVI
0.1 0.9
5km
f
Sample site
SRTM 90 m
2990
1425
5km

28


a
30°26'E
0°28'N
3.5km
Gneiss
Neogene-Recent volcanic rocks
b
Sample site
Relief (2km radius)
60 m 310
3.5km
c
Sample site
Slope (°)
0 31
3.5km
d
Sample site
TRMM 2B31
1.4 m/yr 2.7
3.5km
e
Sample site
EVI
0.1 0.8
3.5km
f
Sample site
SRTM 90 m
1635
1250
3.5km

24


a
31°20'E
0°30'N
20km
Gneiss
b
Sample site
Relief (2km radius)
130 m 740
20km
c
Sample site
Slope (°)
0 47
20km
d
Sample site
TRMM 2B31
0.3 m/yr 2.7
20km
e
Sample site
EVI
0.1 0.9
20km
f
Sample site
SRTM 90 m
2160
1150
20km


a
30°15'E
0°51'N
Miocene to recent sed.
Gneiss
5km
b
Sample site
Relief
(2km radius)
48 m 1220
5km
c
Sample site
Slope (°)
0 42
5km
d
Sample site
TRMM 2B31
1.4 m/yr 2.9
5km
e
Sample site
EVI
0.1 0.8
5km
f
Sample site
SRTM 90 m
2400
730
5km