**Horizontal-to-Vertical Spectral Ratio of ambient noise mesurements performed in the Subequana Valley**

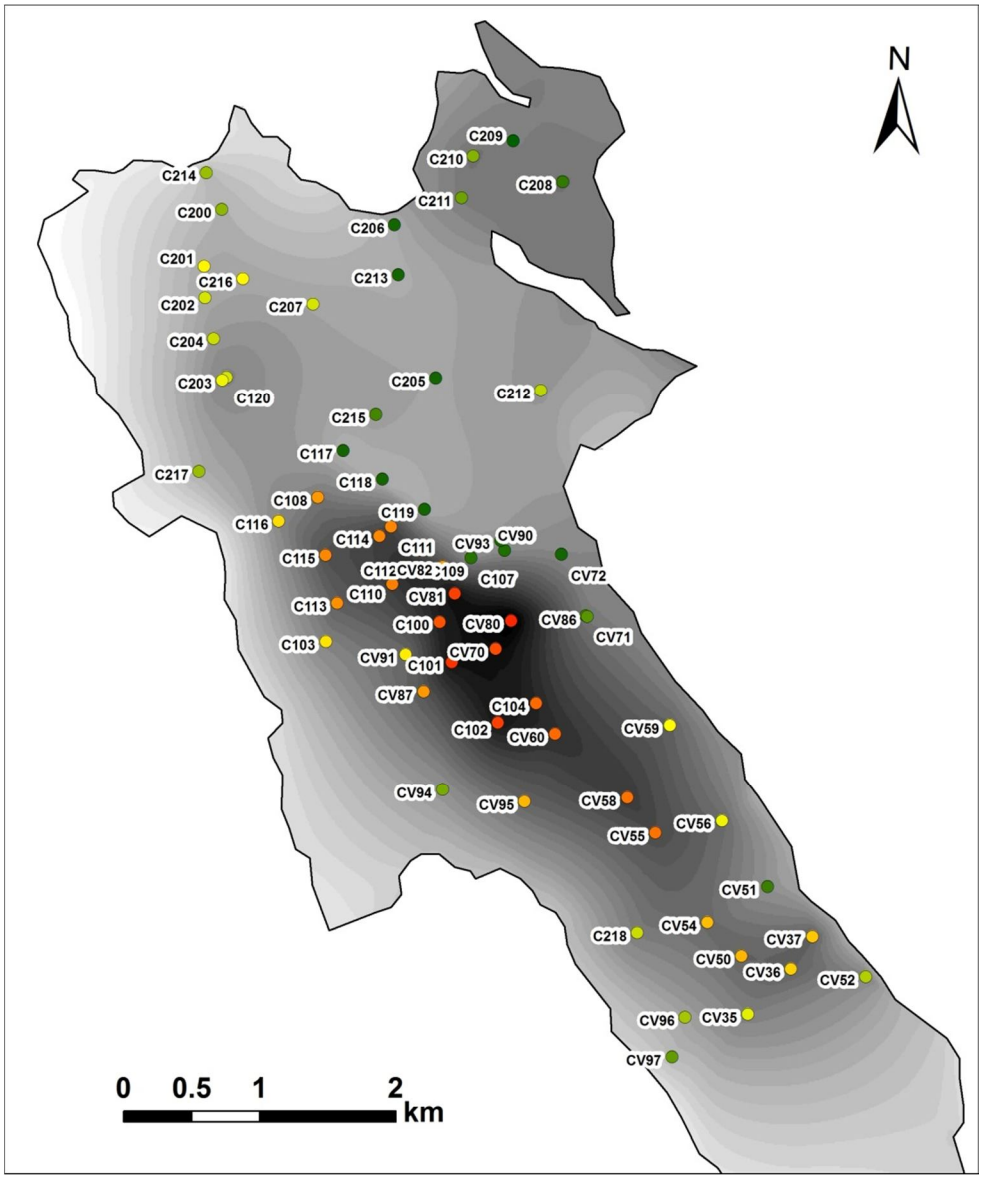


**Figure S1. Detailed map of NHVSR. Labels of each point show the code of the measurement.**

| CODE | LON (°E) | LAT (°N) | SE (m) | F0 (Hz) | ST (m) | BE (m) |
|---|---|---|---|---|---|---|
| CV35 | 13.745432 | 42.099074 | 554 | 1.3 | 94 | 460 |
| CV36 | 13.749206 | 42.102086 | 536 | 1.0 | 135 | 401 |
| CV37 | 13.751063 | 42.104265 | 527 | 1.0 | 138 | 389 |
| CV50 | 13.744784 | 42.102911 | 550 | 0.9 | 150 | 400 |
| CV51 | 13.747010 | 42.107504 | 519 | 6.4 | 14 | 505 |
| CV52 | 13.755848 | 42.101649 | 538 | 1.6 | 73 | 465 |
| CV54 | 13.741700 | 42.105100 | 558 | 1.0 | 140 | 418 |
| CV55 | 13.736983 | 42.110967 | 557 | 0.7 | 210 | 347 |
| CV56 | 13.742875 | 42.111837 | 510 | 1.3 | 96 | 414 |
| CV58 | 13.734437 | 42.113263 | 517 | 0.7 | 210 | 307 |
| CV59 | 13.738119 | 42.118129 | 497 | 1.3 | 99 | 398 |
| CV60 | 13.727933 | 42.117433 | 515 | 0.6 | 230 | 285 |
| CV70 | 13.722538 | 42.123003 | 503 | 0.5 | 277 | 226 |
| CV71 | 13.730534 | 42.125283 | 477 | 3.8 | 26 | 451 |
| CV72 | 13.728257 | 42.129289 | 479 | 888.0 | 0 | 479 |
| CV80 | 13.723891 | 42.124848 | 494 | 0.5 | 319 | 175 |
| CV81 | 13.718812 | 42.126598 | 503 | 0.5 | 283 | 220 |
| CV82 | 13.717740 | 42.128352 | 504 | 0.9 | 160 | 344 |
| CV86 | 13.730638 | 42.125227 | 477 | 3.7 | 27 | 450 |
| CV87 | 13.716200 | 42.120100 | 538 | 0.8 | 165 | 373 |
| CV90 | 13.723193 | 42.129504 | 488 | 27.0 | 2 | 486 |
| CV91 | 13.714563 | 42.122521 | 534 | 1.1 | 113 | 421 |
| CV93 | 13.722846 | 42.130133 | 514 | 888.0 | 0 | 514 |
| CV94 | 13.718033 | 42.113633 | 545 | 2.7 | 39 | 506 |
| CV95 | 13.725315 | 42.112908 | 552 | 0.9 | 150 | 402 |
| CV96 | 13.739860 | 42.098806 | 605 | 1.8 | 67 | 538 |
| CV97 | 13.738740 | 42.096178 | 612 | 3.6 | 29 | 583 |
| C100 | 13.717526 | 42.124717 | 515 | 0.6 | 260 | 255 |
| C101 | 13.718662 | 42.122055 | 517 | 0.5 | 290 | 227 |
| C102 | 13.722836 | 42.118125 | 519 | 0.5 | 283 | 236 |
| C103 | 13.707438 | 42.123308 | 586 | 1.1 | 118 | 468 |
| C104 | 13.726197 | 42.119442 | 497 | 0.6 | 230 | 267 |
| C107 | 13.720227 | 42.128971 | 495 | 20.0 | 4 | 491 |
| C108 | 13.706522 | 42.132807 | 606 | 0.8 | 165 | 441 |
| C109 | 13.715775 | 42.129429 | 514 | 0.9 | 158 | 356 |
| C110 | 13.713288 | 42.127162 | 520 | 0.7 | 206 | 314 |
| C111 | 13.713073 | 42.130940 | 527 | 0.7 | 203 | 324 |
| C112 | 13.714536 | 42.128258 | 515 | 0.6 | 244 | 271 |
| C113 | 13.708406 | 42.125860 | 564 | 0.8 | 173 | 391 |
| C114 | 13.712050 | 42.130310 | 525 | 0.7 | 203 | 322 |
| C115 | 13.707298 | 42.129003 | 561 | 0.7 | 203 | 358 |
| C116 | 13.703097 | 42.131193 | 611 | 1.0 | 132 | 479 |
| C117 | 13.708730 | 42.135905 | 572 | 888.0 | 0 | 572 |
| C118 | 13.712253 | 42.134073 | 573 | 888.0 | 0 | 573 |
| C119 | 13.716033 | 42.132110 | 555 | 888.0 | 0 | 555 |
| C120 | 13.698258 | 42.140700 | 558 | 1.4 | 88 | 470 |

| | | | | | | |
|---|---|---|---|---|---|---|
| C200 | 13.697617 | 42.151798 | 609 | 2.5 | 44 | 565 |
| C201 | 13.696123 | 42.148007 | 656 | 1.2 | 106 | 550 |
| C202 | 13.696225 | 42.145946 | 635 | 1.4 | 88 | 547 |
| C203 | 13.697865 | 42.140488 | 569 | 1.3 | 96 | 473 |
| C204 | 13.697075 | 42.143255 | 597 | 1.5 | 81 | 516 |
| C205 | 13.716855 | 42.140835 | 540 | 888.0 | 0 | 540 |
| C206 | 13.712996 | 42.150955 | 554 | 888.0 | 0 | 554 |
| C207 | 13.705846 | 42.145635 | 628 | 1.4 | 88 | 540 |
| C208 | 13.727880 | 42.153963 | 448 | 8.5 | 10 | 438 |
| C209 | 13.723415 | 42.156603 | 464 | 888.0 | 0 | 464 |
| C210 | 13.719905 | 42.155585 | 475 | 2.6 | 42 | 433 |
| C211 | 13.718920 | 42.152801 | 484 | 3.3 | 31 | 453 |
| C212 | 13.726218 | 42.140116 | 587 | 1.6 | 75 | 512 |
| C213 | 13.713383 | 42.147640 | 558 | 888.0 | 0 | 558 |
| C214 | 13.696198 | 42.154213 | 627 | 2.0 | 57 | 570 |
| C215 | 13.711580 | 42.138333 | 544 | 4.2 | 23 | 521 |
| C216 | 13.699580 | 42.147238 | 646 | 1.2 | 106 | 540 |
| C217 | 13.695946 | 42.134403 | 617 | 2.0 | 57 | 560 |
| C218 | 13.735505 | 42.104333 | 533 | 1.5 | 81 | 452 |

**Table S1. Noise measurements. CODE: code of the measurement. LON: longitude. LAT: latitude. SE: Surface elevation. F0: fundamental frequency of the NHVSR. ST: sediment thickness. BE: Bedrock elevation.**

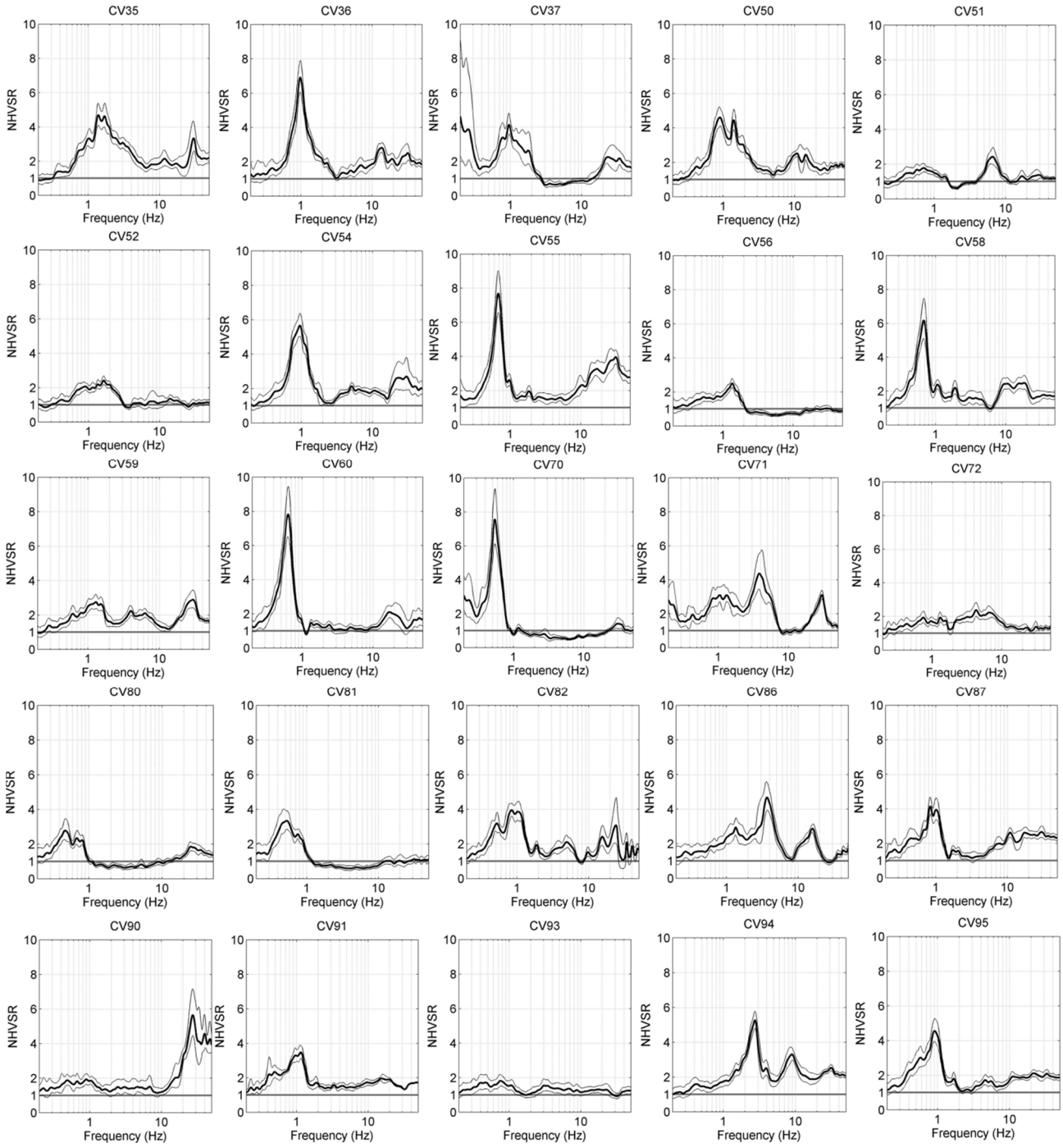


**Figure S2 (continue). NHVSR performed in the Subequana Valley. The code over each panel refers to Figure S1 and Table S1.**

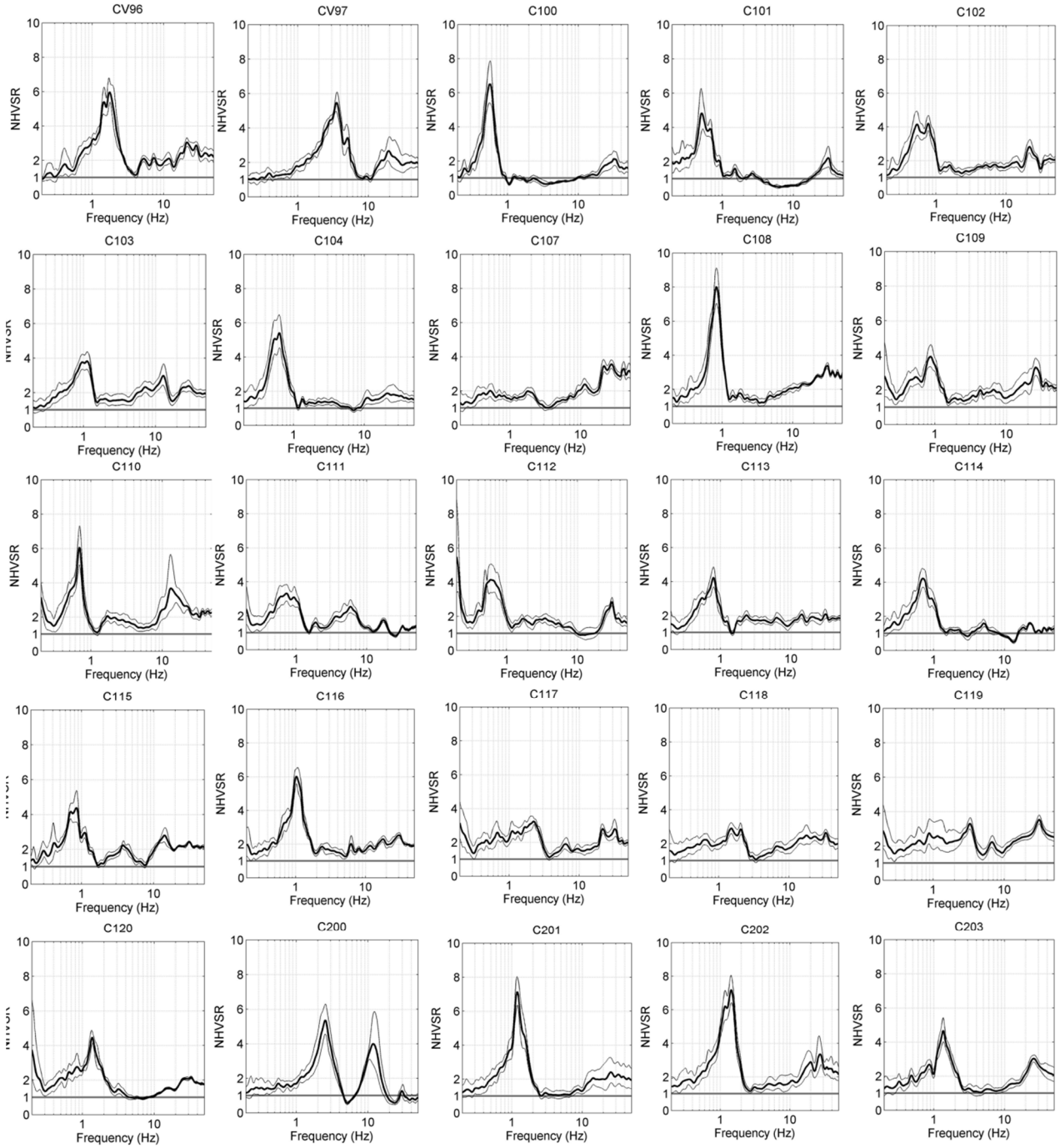


**Figure S2 (continue). NHVSR performed in the Subequana Valley. The code over each panel refers to Figure S1 and Table S1.**

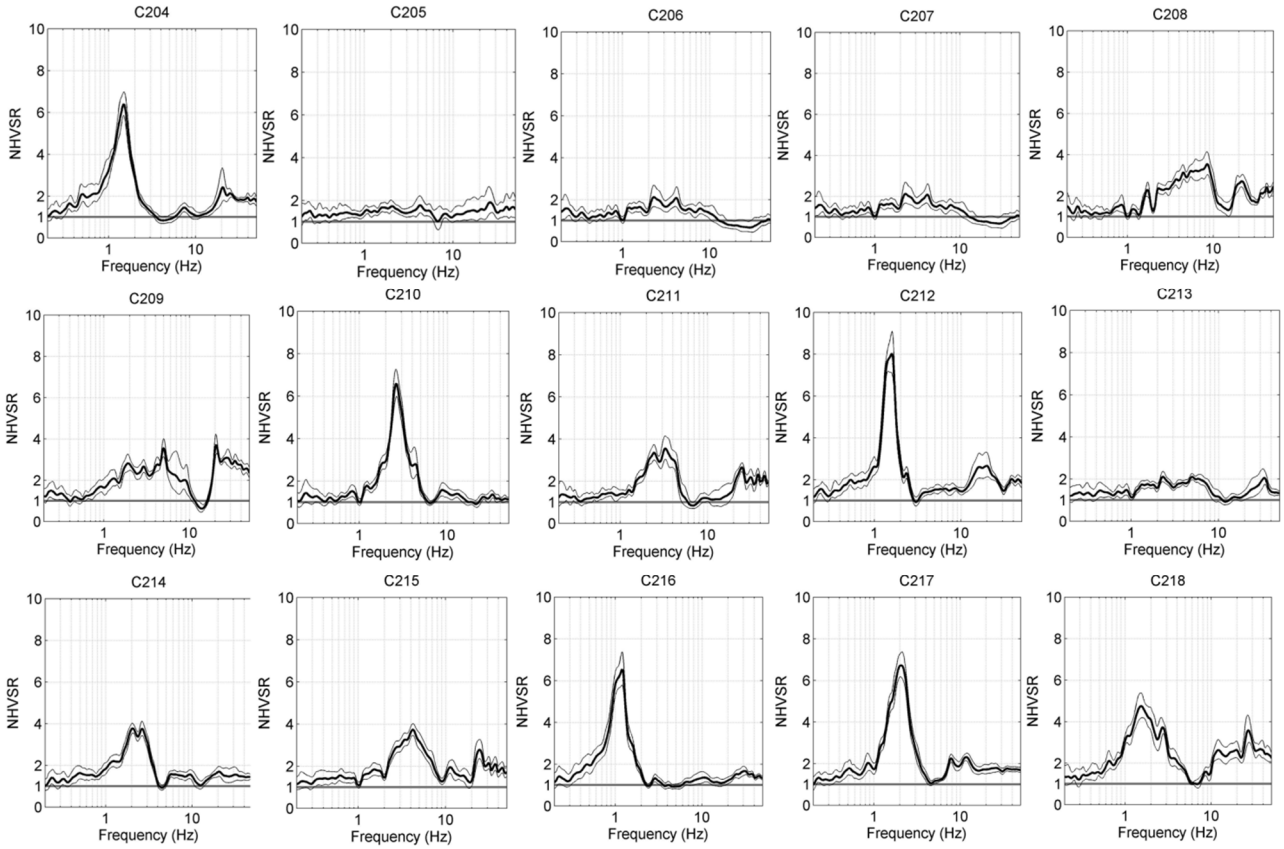


**Figure S2 (continue). NHVSR performed in the Subequana Valley. The code over each panel refers to Figure S1 and Table S1.**